Workplace Mental Health and the Role of Organisational Leaders:

A training needs analysis and evaluation of an online program to reduce depression-related stigma

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Declaration of Originality

This thesis contains no material which has been accepted for a degree or diploma by the University or any other institution, except by way of background information duly acknowledged in the thesis, and to the best of my knowledge and belief no material previously published or written by any other person except where due acknowledgement is made in the text of the thesis, nor does the thesis contain any material that infringes copyright.

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Statement of Ethical Conduct

The research associated with this thesis abides by the international and Australian codes on human and animal experimentation, the guidelines by the Australian Government's Office of the Gene Technology Regulator and the rulings of the Safety, Ethics and Institutional Biosafety Committees of the University.

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Publications and Presentations Arising from this Research

The training needs analysis outlined in this thesis has been published and presented at two conferences, details below:

Shann, C., Martin, A., & Chester, A. (2014). Improving workplace mental health: a training needs analysis to inform beyondblue's online resource for leaders. *Asia Pacific Journal of Human Resources*, 52(3), 298-315.

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Glossary

Affective Stigma

People's evaluations of the emotional aspects of relating to people with depression (Martin, 2010).

Behavioural Stigma

People's intention to exhibit certain behaviours towards people with depression (Martin, 2010).

Cognitive Stigma

People's beliefs about others with depression (Martin, 2010).

Cognitive Behaviour Therapy (CBT)

Based on the idea that feelings are affected by thinking and behaviour. People with depression tend to have unrealistic distorted thoughts, which if unchecked can lead to unhelpful behaviour. CBT typically has a cognitive component (helping the person develop the ability to identify and challenge unrealistic negative thoughts) and a behavioural component (World Health Organization, 2010).

Depression

A common mental illness characterised by sadness, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, feelings of tiredness, and poor concentration. It can be long lasting or recurrent, substantially impairing an

individual's ability to function at work or school or cope with daily life. Depression can lead to suicide (World Health Organization, 2013a).

Discrimination

Negative behaviours or actions directed toward people with mental illness (for example, refusing to hire someone with a mental illness) (Ottati, Bodenhausen, & Newman, 2005)

e-Learning

The use of information and computer technologies to create learning experiences (Horton, 2006).

Employee Assistance Program (EAP)

A work-based intervention designed to enhance the emotional, mental and general psychological wellbeing of all employees and often includes services for immediate family members. The aim is to provide preventative and proactive interventions for the early detection, identification and/or resolution of both work and personal problems that may adversely affect performance and wellbeing (Employee Assistance Professionals Association of Australasia (EAPAA), 2010).

High Impact Learning (HIL)

Workplace learning that is converted into enhanced capabilities that in turn translate into improved job performance and the achievement of organisational goals (Brinkerhoff & Apking 2001). There are three central elements to the model: creating focus and intentionality in the learner; providing learning activities to enhance capabilities; and, supporting performance improvements back in the workplace.

Interpersonal Therapy (IPT)

A psychological treatment designed to help a person identify and address problems in their relationships with family, friends, partners and other people (World Health Organization, 2010).

Kirkpatrick's 'Four Levels' Model of Training Evaluation

A hierarchical model of training evaluation developed by Donald Kirkpatrick which identified four key levels on which training can be evaluated: reaction, learning, behaviour and results (D.L. Kirkpatrick & Kirkpatrick, 2006).

Mental Health

A state of wellbeing in which an individual realises his or her own abilities, can cope with the normal stresses of life, can work productively and is able to make a contribution to his or her community. In this positive sense, mental health is the foundation for individual well-being and the effective functioning of a community (World Health Organization, 2013b).

Mental Health Literacy

Knowledge and beliefs about mental disorders which aid their recognition, management and prevention (Jorm, 2000).

Mental Health Promotion

Aims to improve social, spiritual and emotional wellbeing by creating supportive living conditions and environments that foster connectedness between people, strength in recovery from illness, and competence and resilience in individuals and communities. Prevention strategies are a core component of mental health promotion (VicHealth, 2013).

Mental Illness

Any of various conditions characterised by impairment of an individual's normal cognitive, emotional, or behavioural functioning, and caused by social, psychological, biochemical, genetic, or other factors, such as infection or head trauma. Also called emotional illness, mental health problems, mental disease or mental disorder (American Heritage, 2009).

Norms

Acceptable standards of behaviour within a group that are shared by the group’s members (Robbins, Millett, Cacioppe, & Waters-Marsh, 2001).

Organisational Culture

The ‘social glue’ that helps to hold the organisation together by providing appropriate standards for what employees should say and do (Hoogervorst, van der Flier, & Koopman, 2004).

Organisational Leader

For the purposes of this research, ‘organisational leaders’ are defined as senior managers who manage other managers (that is, not line managers).

Perceived Stigma

People’s beliefs about the negative attitudes of others (K. Griffiths, Christensen, & Jorm, 2008).

Personal Stigma

People’s personal beliefs about people with depression (K. Griffiths et al., 2008).

Prejudice

Prejudice against people with mental illness refers to a negative affective reaction, evaluation, or attitude towards this group of people (Ottati et al., 2005).

Presenteeism

Lost productivity where the employee turns up to work but functions at less than full capacity.

Social Distance

The desire to avoid contact with a particular group of people (Jorm & Oh, 2009).

Stereotype

A cognitive representation of people with a mental illness that is stored in memory. This cognitive representation, which is often a socially shared one, depicts individuals with mental illnesses possessing certain traits (for example, dangerousness) or engaging in certain behaviour (for example, talking to oneself) (Ottati et al., 2005).

Stigma

A mark of shame, disgrace or disapproval which results in an individual being rejected, discriminated against, and excluded from participating in a number of different areas of society (World Health Organization, 2001).

Success Case Method (SCM)

An evaluation approach developed by Robert Brinkerhoff to evaluate training transfer and the impact of a training program. The underlying principle of this method is that often the best indicators of the success (or not) of a training program comes from the participants who have been either exceptionally successful in applying their learning in their work or from participants who have been the least successful (Brinkerhoff, 2002).

Theory of Planned Behaviour

This theory explains human action through understanding the human psychological process, in particular, by uncovering the links between intentions and behaviours. The theory posits that the role of 'intention' functions as a mediator through which three external influences (attitudes toward the transfer behaviour, subjective norm and perceived behavioural control) on transfer behaviour appears. For example, if the learners' attitude towards the training behaviour is positive the training behaviour will emerge (Cheng & Hampson, 2008).

Training Transfer

The application of newly learnt knowledge and skills back into the workplace.

Abstract

Background: The effective management of employees with depression represents an emerging organisational challenge for leaders. Depression is a common mental health problem that, if left untreated, has far-reaching effects on the individual, their family, the health system and, increasingly, on the organisation in which they work. Despite these impacts, depression is generally not managed well, particularly in the workplace setting. While most large Australian organisations offer Employee Assistance Programs and are beginning to provide mental health relevant training to staff and front-line managers, it is very rare that the issue of managing mental health in the workplace is built into leadership education and development programs. As a result, the relevant skills and knowledge precariously rest with individual employees, rather than being built into the culture of organisations in a sustainable way. However, online technologies offer new opportunities for the delivery of workplace mental health information and stigma reduction interventions. This delivery channel may be particularly suited to the learning needs of time-poor leaders.

Aims: The aim of the current research was to investigate whether a sustained change in the stigma and mental health literacy of organisational leaders in relation to managing depression in the workplace could be achieved as a result of completing an online workplace mental health program. An additional aim was to examine whether change in stigma level and mental health literacy led to behavioural change. This would indicate that the learning was transferred from the training environment to the workplace, and was thus, more likely to be embedded in the organisational culture.

Methods: An exploratory online survey of 379 leaders (*N* = 215 females, *N* = 164 males) and 364 human resources and learning and development professionals (*N* = 288 females, *N* = 76 males) was undertaken as a training needs analysis to determine the training needs of organisational leaders in relation to workplace mental health. Building on this information, a brief online workplace mental health program was developed in conjunction with an Australian mental health charity, beyondblue. The program was designed to provide leaders with information, tools and practical actions to help them create a mentally healthy workplace and reduce stigma in their workplace. A total of 311 organisational leaders (*N* = 163 females, *N* = 148 males) participated in a mixed methods, randomised controlled, 'in the field' evaluation study. Participants signed-up to the study, filled in a pre-survey online, were randomly assigned to either the experimental (n=155) or the wait-list control (n=156) groups. Approximately one week later, leaders in the experimental group were sent a link to the online program and asked to complete the post-survey at the end of the program. At the same time, leaders in the control group were asked to complete the post-survey online. Six months later, participants were asked to complete a final online survey as a follow-up assessment. The following variables were measured in the evaluation: various demographics, depression knowledge, stigma, organisational strategies and norms, pre-training motivation, reactions to the online program, the usability of the program and training transfer. Finally, 16 organisational leaders participated in semi-structured interviews to explore their application of knowledge learned from the program.

Results: The training needs of leaders were identified by the training needs analysis and incorporated into the design of the workplace mental health program. Analysis of the quantitative and qualitative data from the evaluation study revealed several important findings. For example, at baseline male leaders employed in the private sector and leaders without prior experience of depression, reported higher levels of stigma. Analysis of pre and post data revealed significant reductions in behavioural, affective and total stigma scores in the leaders who completed the online program. These reductions were sustained at 6-month follow-up. No main effects were found for mental health literacy (that is, knowledge about depression), social distance or the cognitive component of stigma. Further, qualitative interviews revealed a range of individual and contextual factors that either enabled or hindered the application of learning from the online program into the workplace. These factors included the nature of the work environment itself, the collective readiness and capability of the organisation to address these issues, the attitudes of others at work and the broader political context.

Conclusions: The online program was shown to be effective in reducing stigma. While this effect was sustained over time, the program did not improve knowledge about depression. However, there was evidence that leaders were using the material in the program to increase the mental health knowledge of others in their workplace and in other organisations. In addition, the evaluation study has shown that positive attitudes and high levels of knowledge are not in themselves sufficient to ensure leaders are able to apply program learning into their work environments. A range of

contextual factors emerged as significantly influencing the extent to which new knowledge is applied in the workplace.

Several limitations with the evaluation study are highlighted, including the convenience sampling approach utilised and the impact of social desirability bias. However, the utilisation of mixed methods and randomised control in the research design produced robust and reliable results. The evaluation study has practical implications, particularly in relation to the targeting and tailoring of workplace mental health programs, in order to reach an identified priority group for stigma reduction initiatives. It also highlights the importance of harnessing the commitment of those leaders who are already motivated to act in this area (most likely due to a personal experience of depression) and engaging them as champions. Several areas of future research are also identified, including the effectiveness of online programs like the current one to reduce stigma related to other mental health conditions and the impact of this program on the business and on other employees working with leaders who participated. These would strengthen what is currently known about how best to ensure learning from programs such as these is embedded in organisational culture, so that resultant changes in attitudes and behaviours can be sustained over time.

Chapter 1: Introduction

Nearly one million Australians experience depression each year (Slade et al., 2009). Depression causes significant negative impacts on the individual, their family, the community and the health system. It is currently the leading cause of non-fatal disability (Begg et al., 2007). Depression spans the continuum from mild, barely perceptible subclinical effects to disabling and debilitating symptoms, significantly affecting an individual's ability to function day to day (Caruso & Myette, 2008).

These impacts also translate into the workplace. For example, depression accounts for three to four days off work per month, for each person experiencing it (Andrews, Hall, Teesson, & Henderson, 1999). Moreover, untreated depression can result in a significant reduction in work performance and accounts for more than 12 million days of reduced productivity in Australia each year (Andrews et al., 1999), with serious implications for work safety. It has been estimated that it costs the Australian economy approximately $8,000 per person or $12 billion per year (LaMontagne, Sanderson, & Cocker 2010). The majority of these costs relate to employment, including lost productivity and the cost of replacing an employee from job turnover.

Much of this cost is preventable as effective treatments are available. However, it is estimated that 40 percent of people with depression do not access professional help (Slade et al., 2009). The major barriers to seeking help are stigma and lack of knowledge about the condition and its treatment (that is, poor mental health literacy) (Barney, Griffiths, Christensen, & Jorm, 2009). This also translates into the workplace context, with a fear (often well-founded) that the disclosure of an experience of

depression will lead to the loss of a job or being overlooked for promotion (Glozier, 1998).

Despite the prevalence of depression, and the impact of depression-related stigma, it is generally not managed well by organisations (Caruso & Myette, 2008). In fact, many management practices, such as recommending time off work or instigating formal performance management procedures, can even worsen the situation by compounding the problem (The Australasian Faculty of Occupational & Environmental Medicine, 2010).

In recent years, momentum in Australian workplaces to address these issues has been growing (LaMontagne, D'Souza, & Shann, 2012). However, workplace-based interventions still tend to focus solely on the individual with depression (LaMontagne, Keegal, Louie, & Ostry, 2010) (for example, through Employee Assistance Programs) or on front-line managers (for example, through the delivery of manager training programs). Rarely are skills training on this issue built into leadership education and development programs. This results in relevant skills and knowledge precariously resting with individual employees rather than being built into the culture of the organisation in a sustainable way. In addition, by focusing at the individual level, current interventions do not reflect power and decision-making structures in organisations, nor do they take into account how change is effected.

While leaders need to be equipped with the skills to support employees experiencing a mental health problem, they also need to know how to create a supportive culture. This means assisting their line managers to move beyond mere compliance with relevant legislation (for example the *Disability Discrimination Act* and the various *Occupational Health and Safety Acts*), towards active promotion of

employee mental health, for the benefit of both individuals and their organisations. This is particularly important where mental illness is concerned as stigma continues to exist, and presents a significant barrier to people accessing effective treatments (Lasalvia et al., 2013).

In this context, it is vital that the leadership and culture of an organisation support the implementation of any new skills and knowledge promoted during workplace mental health promotion initiatives. The relationship between leadership and culture is an intimate one as highlighted in Bandura's (1977) Social Learning Theory: it is leaders who shape the organisational culture and must model the values and behaviours that underpin it.

In addition to the importance of leadership in reinforcing desired attitudes and behaviours in relation to employees with depression, the rise in the use of e-learning and online technologies for the delivery of mental health information (H. Christensen, 2010) provides new opportunities for the delivery of mental health programs in the workplace. There are a number of benefits of online delivery of such information and programs. These include reduced costs, increased convenience to users, increased accessibility for isolated groups, user-controlled delivery pace, ability to tailor information to user needs, real and perceived anonymity of the internet and ability to reach stigmatised groups of people, such as those experiencing depression (Billings, Cook, Hendrickson, & Dove, 2008; Whiteford & Groves, 2009).

Given the detrimental impact of depression in the workplace, the aim of the current research was to investigate whether a sustained change in the stigma and mental health literacy of organisational leaders in relation to managing depression in the workplace could be achieved as a result of the completion of an online program.

An additional aim was to show that any change in stigma and mental health literacy led to behavioural change. That is, that the learning has been transferred from the training environment to the workplace, so that it can eventually be embedded in the organisational culture.

Approach of the Current Research

To achieve these aims, the current research extended the existing field of knowledge by investigating an effective way of developing the motivation, insight and skills of organisational leaders to take action on the stigmatised topic of depression at work.

While anxiety disorders are more common in Australia than depression (Slade et al., 2009), they are less well understood in a workplace context and very little research has been conducted to understand how anxiety-related stigma is conceptualised (Reavley & Jorm, 2011). Therefore, the focus of the current research is on depression[1]. Further, for the purpose of this research 'organisational leaders' are defined as senior managers who manage other managers (that is, not line managers)[2].

Two major groups of findings are presented in this thesis: (i) the results from a training needs analysis designed to identify the training needs of organisational leaders in relation to managing depression at work and workplace mental health, more broadly, and (ii) the results from an evaluation of the online program that was

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[1] While anxiety disorders are more common in Australia, depression, in general, is more disabling to those affected (Andrews, Sanderson, Slade, & Issakidis, 2000).

[2] This broad definition of 'organisationl leader' was adopted as it has been argued elsewhere that organisational leaders across several hierarchical levels influence the behaviour of employees (Mayer, Kuenzi, Greenbaum, Bardes, & Salvador, 2009). The apparent controversy in the management literature regarding the difference, if any, between 'manageement' and 'leadership' is still being debated. Weighing into this debate was beyond the scope of this thesis.

designed based on the results of the training needs analysis. The evaluation utilised a mixed methods (quantitative and qualitative) randomised control design. It drew on traditional approaches to training evaluation such as Kirkpatrick's (1994) Four-Levels Model, the literature on the predictors of training transfer (Cheng & Hampson, 2008), and newer approaches to training evaluation such as Brinkerhoff's (2006) High Impact Learning and Success Case Method.

The online program that was the subject of the evaluation study reported in this thesis was designed and developed by beyondblue, a large Australian mental health charity. While beyondblue utilised the results of the training needs analysis conducted as part of the research conducted for this dissertation, the researcher was not directly involved in program design. Given this, a detailed analysis of the design of the online program is outside the scope of this thesis. Instead, a brief overview of the program content is provided in Chapter 8. It is argued that this 'in the field' approach as opposed to a researcher-driven 'laboratory' approach to stigma reduction program evaluation was an important strength of the study, reflecting an effective and meaningful partnership between the community and research sectors. However, the limitations and implications of this approach are also discussed in Chapter 10.

This thesis integrates literature from the fields of workplace mental health promotion intervention, theories of stigma (for example, Haghighat, 2001) and training transfer and evaluation. Within this context, the term 'program' is used to describe the online workplace mental health intervention that was subject to the mixed methods evaluation in the current study.

Thesis Structure

This thesis comprises ten chapters, including the current introductory chapter. A brief description of the remaining nine chapters is outlined below.

Chapter 2 presents a review of the literature pertaining to the reasons why depression is not just a community issue but also a workplace and organisational issue. It begins with a review of prevalence estimates for depression and highlights that it occurs most commonly in working-age people. The debilitating and costly nature of depression is discussed. Although there is a body of research highlighting the impact of working conditions, such as job stress, on worker mental health (LaMontagne, Keegal, et al., 2010; Sanderson & Andrews, 2006). This literature is outside the focus of the current research and, therefore, has not been included in the literature review.

Chapter 3 reviews the literature on stigma related to mental illness, particularly depression. It is argued that stigma and poor mental health literacy are major barriers to seeking help, resulting in significant impact to organisations. A summary of the research on the theoretical conceptualisation and predictors of stigma is presented. Specifically, the Unitary Theory of Stigmatisation (Haghighat, 2001) is discussed along with a review of the elements of effective stigma reduction strategies. Finally, the design of the online program being evaluated in the current study is discussed in the context of the reviewed literature.

Chapter 4 presents a summary of the literature on current workplace practices in the area of mental health. Two common workplace mental health interventions are examined: Employee Assistance Programs (EAPs) and mental health training programs. Drawing on Social Learning Theory (Bandura, 1977), a case is made for

specifically targeting organisational leaders in the design and delivery of workplace mental health training programs. Online mental health training programs are then examined as an emerging delivery option for mental health information in the workplace context.

Chapter 5 provides an overview of approaches and models used to measure the effectiveness of workplace training. This chapter begins with a brief review of the workplace training evaluation literature and the training transfer research, and then provides an outline of the most popular and long-standing approach to training evaluation: Kirkpatrick's Four-Levels model (2006). Criticisms of this model are discussed and alternative models are proposed, namely Brinkerhoff's High Impact Learning (HIL) (2001) and Success Case Method (SCM) (2002).

Chapter 6 presents a detailed discussion of the training needs analysis and the development of the online stigma reduction program. Chapter 7 draws the above literature review chapters together through the development of specific hypotheses and research questions that will be tested and explored and details the mixed methods design utilised in the evaluation study.

Chapter 8 provides an overview of the research design and quantitative methodology used in the evaluation study. The sample, data collection procedures and measurement of the constructs are described. This chapter also details the results of the statistical analyses used to test the quantitative hypotheses and explore the quantitative research questions. Chapter 9 details the qualitative methodology and the results from the thematic analysis of semi-structured interviews.

Finally, Chapter 10 discusses the findings of the evaluation study in relation to the hypotheses and research questions, and addresses their practical implications. The

limitations of the study, implications for theory and suggestions for future research are then discussed.

Chapter 2: Why is Depression a Workplace Issue?

Introduction

This chapter demonstrates the critical importance of the health issue of depression to organisations. It begins with a discussion of the prevalence and the debilitating nature of depression. Depression affects people most commonly in their prime working years and can lead to significant reductions in performance and productivity. This chapter reviews the literature concerning the need for organisations to be concerned about the impact of depression in the workplace. This is both a personal health issue and an organisational and economic issue. Untreated depression is prevalent and debilitating, contributing to significant costs to the individual affected, to organisations and to the Australian economy.

Much of these burden and costs could be avoided if people affected by depression accessed effective treatments early. Despite the availability of treatments, 40 percent of people with depression do not seek professional help for it, thus further increasing the impact of the illness. To tackle this public health issue the major barriers to help-seeking, that is poor mental health literacy and high levels of stigma, need to be addressed.

Prevalence of Depression Amongst the Working Population

Depression is among the most common mental illnesses in the Australian community. This has been most recently demonstrated by the Australian Bureau of Statistics in the 2007 National Survey of Mental Health and Wellbeing (NSMHW) (Slade et al., 2009). This survey of 8, 841 Australian adults aged 16-85 years revealed depression to be the second most common mental health problem in the nation,

affecting 6.2 percent of respondents in the 12 months prior to the survey (Henderson, Andrews, & Hall, 2009). It affects more women than men (7.1 percent versus 5.3 percent) and is most prevalent in the 16-44 years age group (7.6 percent, compared to 3.3 percent for those aged 55-85 years) (Slade et al., 2009). Unlike many other chronic illnesses, the early age of onset of depression causes it to impact on individuals before and during their prime working years (Thomas & Hite, 2002). Therefore, it can impact on educational attainment and vocational training and disrupt normal career development.

Of all people with depression in the 2007 survey, just over half (51.1 percent) had a severe disorder and one in ten (10.2 percent) had a mild disorder (Slade et al., 2009). In addition, people with depression had the greatest number of days out of role (6.2 days out of the previous 30 days) compared to those with other common mental health problems. In addition to the 12 month prevalence rates highlighted above, the 2007 survey also estimated that 15 percent of Australians aged 16-85 years (or 2.4 million people) had, at some point in their lifetime, experienced a depressive disorder. However, these lifetime prevalence rates should be interpreted with caution as several researchers in the field are critical of the methods used to calculate them (Henderson et al., 2009; Jorm, 2006).

If left untreated, major depression is potentially life-threatening. Depression accounts for approximately 50-70 percent of suicides in the USA (Schott, 1999). Sokero (2006) investigated risk factors for suicidal ideation and suicide attempts among a sample of psychiatric patients with depression. The results showed that during the depressive episode, 58 percent of all people had experienced suicidal ideation and 15 percent had attempted suicide. The vast majority of Australians are

affected either directly or indirectly by depression, through family, friends or colleagues.

Given the prevalence of depression, it is likely that it appears in almost all workplaces in Australia (Thomas & Hite, 2002). This has led many researchers to investigate the prevalence of this disorder in the workplace context. Prevalence rates in the workplace reflect those in the general community, with depression being one of the most common mental health problems in Australian workplaces (Sanderson & Andrews, 2006). Most studies (both Australian and international) have estimated the prevalence of depression in the workplace as being between 3.6-6.5 percent (M Hilton et al., 2008; R. C. Kessler, Merikangas, & Wang, 2008; Lerner & Henke, 2008; Sanderson & Andrews, 2006; J Wang, Adair, & Patten, 2006; Williams & Schouten, 2008).

Despite the well-documented high prevalence of depression, many employers and managers are sceptical regarding the impact of depression on their own workforces. A survey (The Shaw Trust, 2006) of 550 senior managers examined how British employers and managers perceived mental health problems, including depression, in the workplace. Nearly half of employers who responded to the survey thought that none of their employees would experience a mental health problem during their working life. While the actual lifetime prevalence rate of depression is approximately 15 percent (Slade et al., 2009), more than two-thirds of employers and nearly half of the human resource managers surveyed greatly underestimated it to be in the range of 0-5 percent. Findings like this highlight the large discrepancy between employers' perceptions of the prevalence of depression in their workplace and the

reality of the population prevalence estimates. This is even more concerning when the burden of depression is examined in the workplace context.

The Debilitating Nature of Depression

Depression among the working population constitutes a major public health burden and is a leading cause of impairment and disability in established market economies. The Global Burden of Disease Project (Andrews et al., 2000) showed that mental illness, including depression, accounted for less than 1 percent of the years of life lost, 26 percent of the years lived with disability, and 9 percent of the global burden of disease. In established market economies the impact is even higher. Mental illness accounted for 2 percent of the years of life lost, 43 percent of the years lived with a disability, and a 22 percent of the total burden of all diseases (Andrews et al., 2000).

It is well established that depression contributes the largest burden of all mental illnesses (Moussavi et al., 2007; Whiteford & Groves, 2009). In 2004, depression was the third highest cause of burden of disease and is predicted to be the leading cause in the year 2030 (World Health Organization, 2008). Jorm (2006) argued that the burden could be far greater than that stated by the World Health Organization. It is being increasingly recognised that even sub-threshold symptoms contribute some disability to the affected person. There are a large number of people with some depressive symptoms experienced at a sub-clinical level and a much smaller number with disorders, so that much of the burden of disability in the population is attributable to sub-threshold symptoms rather than to depressive disorders. Jorm (2006) asserts that sub-threshold depression remains hidden and does not feature in national burden of disease calculations.

The burden and impact of depression also applies in the workplace, with work performance and productivity being significantly impaired by depressive symptoms (Truaz & McDonald, 2002). The impact of depression on work performance is not surprising when common symptoms are examined. These include fatigue or low energy either related directly to depression or as a result of depressive sleep disturbance, difficulty concentrating on the task at hand, making decisions, or remembering instructions, lack of interest in tasks, poor time management, insecurities or negative evaluations of one's own work to the point that it interferes with performance, or increased sensitivity to criticism such that feedback is not elicited or clarification is not sought.

Kessler, Zhao, Blazer and Swartz (1997) have demonstrated that even sub-clinical depression can have a significant impact on work performance. They analysed data from the USA National Comorbidity Survey, a nationally representative survey of the prevalence of mental illness among a large sample (N = 8,098) of 15-54 year olds in the USA household population. Rates of help seeking (consultation with a doctor over their lifetime) and employment status (work lost over the last 30 days) were virtually identical for those with sub-clinical depression, compared to major clinical depression.

The course of depression can be chronic, particularly in the absence of appropriate treatment (OECD, 2012). Depression is episodic and levels of impairment or disability can fluctuate over time. The episodic nature of the illness may impact on confidence, cognition, mood, motivation, problem-solving and social skills so that work-functioning and employment are disrupted (OECD, 2012). A systematic review

found strong evidence for the positive association between a long duration of depression and more work disability (Lagerveld et al., 2010).

It has also been suggested that depression can lead to increased workplace accidents. Haslam, Atkinson, Brown and Haslam (2005) examined the perceptions of people with depression regarding the impact symptoms have on work performance. The researchers conducted nine focus groups with people with depression. Workers reported that both symptoms of depression and medication impaired their work performance and increased their vulnerability to workplace accidents. For example. healthcare workers with depression believed that they placed themselves and their patients at risk when carrying out medical procedures. While this research provides some evidence for a link between depression and workplace accidents, the results should be interpreted with caution for several reasons. First, the results from the study are not widely generalisable, as it is likely that people who had experienced problems with medication were more likely to self-select participation in the study. Second, no objective measurement of severity of symptoms was sought and it is likely that risk of accident varies considerably depending on severity. Third, given the research methodology relied on participants' self-report, it is possible that recall biases may have influenced the cause assigned to each accident.

The debilitating nature of depression is further demonstrated when employment participation rates of people with depression are examined. The impairments and levels of disability outlined above can significantly compromise people's ability to function at work and can have a major impact on ongoing employment. Mental illness makes the largest contribution of all major health conditions to health-related labour

force non-participation rates (Laplagne, Glover, & Shomos, 2007). Further the labour market exclusion of people with a mental illness is increasing (OECD, 2012).

Depression and Employment Participation

Compared with other disability groups, people with mental illness have the lowest rates of employment (Cornwell, Forbes, Inder, & Meadows, 2009). In 2003, the labour force participation rate of people with mental illness aged 15 to 64 years was 28.2 percent and the unemployment rate was 19.5 percent, compared to 48.3 percent and 7.4 percent respectively for those with physical disability (Australian Bureau of Statistics, 2003).

These low rates of employment participation have been investigated by Waghorn and Chant (2006). The data for these studies came from the 1998 ABS Survey of Disability, Ageing and Carers Australia (SDAC). The survey took place in rural and urban areas in all states and territories and included 15,316 private dwellings and 399 non-private dwelling units (e.g., hotels, motels, boarding houses, caravan parks, camping grounds, self-care components of retirement villages). Completed interviews were obtained from 35,569 people or 94.4 percent of the total sample. Clinical criteria were used to identify current depression. Employment restrictions were assessed at four levels of severity (profound, severe, moderate and mild). The researchers found that depression had substantial impacts on labour force participation. Depression was associated with a 46.4 percent reduction in labour force participation among males, and a 28.6 percent participation reduction among females. This finding demonstrated the overall poor employment participation rates of people with depression.

Participation in employment can be an important part of the recovery process for many people with depression by providing status, income security, structure and routine, a sense of identity and achievement, a source of self-esteem and social contact (OECD, 2012; Thornicroft, 2006; Waddell & Burton, 2006). Work provides clinical improvement and reduces hospital admissions, use of medication, relapses and psychiatric symptoms (Duncan & Peterson, 2007). Waddell and Burton (2006) conducted a scientific literature review to investigate the impact of work on mental health. The authors concluded that in order to promote recovery and rehabilitation people with depression should be encouraged and supported to remain in or to re-enter work as soon as possible. With appropriate and timely treatment the burden of depression can be reduced and participation in employment of people with depression can be increased (Simon et al., 2001; Whiteford & Groves, 2009).

The Indirect Costs of Depression

In addition to workplace impacts, the personal costs of depression on the individual and families are considerable. Direct treatment costs consist of resources spent on inpatient and outpatient treatments, partial hospitalisation, and residential, pharmacological and other treatments. Second, indirect economic costs arise from any increase in mortality attributable to the illness, and third, indirect economic costs arise from morbidity, particularly those that cause reductions in afflicted individuals' productive capacities (Cocker et al., 2014; Dewa, McDaid, & Ettner, 2007; Kazdin & Blase, 2011; P. S. Wang, Simon, & Kessler, 2003). A conservative estimate from the International Labour Organisation puts these costs at 3-4 percent of gross domestic product in the European Union (OECD, 2012). In addition, mental illness is more costly per episode than physical illness (Dewa, Chau, & Dermer, 2010).

Depression can also be financially burdensome for organisations. For example, comparative cost-of-illness studies show that depression is among the most costly of all health problems to US employers in terms of productivity loss (Kessler et al., 2008). An economic analysis in Australia has also highlighted the high societal costs of depression. LaMontagne, Sanderson and Cocker (2010) used data from the 2007 National Survey of Mental Health and Well-Being (NSMHWB) to estimate the costs of depression to the Australian economy. Total costs over one year were estimated at just over $8,000 per person with depression or $12.6 billion in total, with costs over the lifetime of the 2007 population at $138,679 per person or $213.5 billion in total. The majority of costs related to employment, including lost productivity and the cost of replacing an employee from job turnover, rather than from health condition-related costs such as health service use and medication.

Workers with depression miss more days of work and are less productive on days when they are at work than workers without depression (Kessler et al., 2008). Lerner and Henke (2008) conducted a review of research articles published since 2002, reporting on the magnitude and/or nature of the impact of depression on work. In most studies, irrespective of study type, depression was significantly associated with decrements in job performance and at-work productivity. Studies measuring both absenteeism and presenteeism (that is, lost productivity where the employee turns up to work but functions at less than full capacity) were consistent in finding that presenteeism created the higher cost burden. For example, Stewart, Ricci, Chee, Hahn and Morganstein (2003) found that 80 percent of the costs of depression in the workplace can be attributed to presenteeism. This finding does not vary according to

whether absenteeism was measured by self-report or using administrative data (Lerner & Henke, 2008).

Depression affects worker productivity more subtly than does physical illness. Though people may take time off from work in response to a physical condition, they are less likely to do so for a mental health condition, such as depression (Dewa & Lin, 2000; Druss et al., 2009). Several factors have been shown to predict the likelihood of presenteeism, including co-morbid mental illness, self-assessed mental health and symptom severity (Cocker et al., 2011).

The effect of depression on one's ability to work is significant and maintaining productivity in the workplace is an important part of recovery from a common mental health problem (Sanderson & Andrews, 2006). However, a major issue is the promotion of help seeking as many people with depression do not access effective treatments (Slade et al., 2009). Given that effective treatments exist for common mental disorders, such as depression, much of the burden and impairment described can be avoided.

Treatment Efficacy and Uptake

At least 80 percent of people experiencing depression can be treated effectively with psychological therapy, medication, or a combination of both (Burton & Conti, 2008). Psychological therapy (particularly Cognitive Behaviour Therapy and Interpersonal Therapy) is identified as the first-line evidence based treatment for depression (Butler, Chapman, Forman, & Beck, 2006; de Mello, Mari, Bacaltchuk, Verdeli, & Neugebauer, 2005; Myette, 2008). Antidepressant efficacy has been established in randomised clinical trials and effectiveness studies for acute and long-

term treatment for most (but not all) people with severe depression (Nierenberg et al., 2008; Sartorius, Baghai, Baldwin, & Barrett, 2007).

Australians can access Medicare-subsidised psychological treatment through the Australian Government-funded ‘better access to mental health care’ scheme. Despite some valid criticisms of the scheme, including the lack of incentives for practitioners to provide services in high-need locations (Crosbie & Rosenberg, 2008; Richards & Bower, 2011), the scheme has increased the accessibility of psychological treatment. There is also a growing availability of phone and online psychological services (H. Christensen & Hickie, 2010; Klein & Cook, 2010; Leach, Christensen, Griffiths, Jorm, & Mackinnon, 2007). While it is arguable that more needs to be done to improve access in rural and regional areas and among other traditionally ‘hard to reach’ populations, knowledge about what works and the availability of these services has increased substantially over the last ten years.

The findings of the 2007 NSMHWB suggest that more people are coming forward to seek help and more report their need as having been met than was the case in 1997 (Henderson et al., 2009). However, these rates are still low: more than 40 percent of people with depression did not seek professional help in 2007, with males less likely to use services than females (Slade et al., 2009). It is apparent that many individuals affected by depression do not disclose their illness and do not seek professional help in a timely manner (Thompson, Hunt, & Issakidis, 2004). This is especially alarming, given strong evidence of poorer outcomes with longer duration of untreated symptoms of common mental illnesses, such as depression (Kisley & Denney, 2006).

Results of the 2007 NSMHWB survey revealed that of those with a mental illness who were not receiving treatment, 86 percent said they did not need any type of help (Henderson et al., 2009). Burgess et al. (2009) suggested that this could be because they feel stigma associated with seeking mental health services or that they simply did not recognise that they had a mental health problem for which effective treatment is available, that is, they have low mental health literacy. Verhaak et al. (2009) demonstrated that receiving help for common mental disorders depends not only on the objective need of the individual but also, at least as much, on the patient's own recognition that their problems have a mental health origin.

Many individuals experiencing depression are unwilling or unable to seek help. The variety of reasons for this will be discussed in more detail within this thesis. Simply improving access to more providers will not necessarily address the broader unmet needs of all individuals experiencing depression (Whiteford & Groves, 2009). With this in mind, improving mental health literacy represents one way to reduce stigma and encourage help-seeking behaviour. At a basic level, this includes the recognition of symptoms that constitute depression and increasing knowledge about available and effective treatments (Carli, 2004).

Conclusion

Depression is one of the most common mental health problems in Australian workplaces and is certainly the most debilitating and costly. It has been estimated that depression costs the Australian economy $12.6 billion per year, with the largest costs attributable to lost productivity (LaMontagne, Sanderson, et al., 2010). Unlike many physical illnesses, it also tends to affect individuals during their prime working years. Despite this, employers and human resource managers still underestimate the

prevalence and impact of depression. The literature reviewed here suggested that early access to treatment for depression may prevent much of the cost and impairment associated with the illness. However, in Australia approximately 40 percent of people with depression do not seek help. This is despite effective treatments being available and the costs for these now being subsidised by the Australian Government. Low mental health literacy and stigma in the community and workplaces are two factors that may prevent many people from accessing treatment. These barriers must be addressed in order for the costs and burden of depression to be reduced.

Chapter 3: Depression Stigma - Its Impact at Work, Conceptualisation and Strategies for its Reduction

Introduction

As demonstrated in the previous chapter, untreated depression results in substantial cost and impact to individuals and organisations. This is despite effective treatments being available. This chapter reviews the literature on depression-related stigma. It will be argued that much of the burden and cost of depression, particularly in the workplace context, can be reduced or avoided if the stigma and the associated lack of knowledge of depression is addressed, as these two factors are major barriers for people seeking help for depression.

A considerable amount is now known about the factors that predict high levels of stigma. Haghighat's (2001) Unitary Theory of Stigmatisation is presented here as an explanation for the structure of stigma, and the implications of this theoretical approach for effective workplace stigma reduction programs are discussed. This information can be used by organisations in stigma-reduction programs to encourage and promote help seeking among employees with depression. Finally, an overview of the implications of this literature for the design of the online program being evaluated in this thesis will be presented. Several hypotheses and research questions based on this review of the literature are detailed in Chapter 7.

Workplace Stigma as a Major Barrier to Help-Seeking for Depression

In the workplace context, poor mental health literacy and stigma are seen as significant barriers to people seeking help for depression (Barney et al., 2009; Duncan & Peterson, 2007; Gelb & Corrigan, 2008; Honey, 2003, 2004; Jorm, 2000; Lasalvia et al., 2013; McNair, Highet, Hickie, & Davenport, 2002; OECD, 2012). Mental health literacy has been defined as "knowledge and beliefs about mental disorders which aid their recognition, management or prevention" (Jorm, 2000, p. 396). Jorm (1997) has developed a conceptual framework for mental health literacy with six components: (i) ability to recognise specific disorders or different types of psychological distress, (ii) knowledge/beliefs about risk factors and causes, (iii) knowledge/beliefs about self-help interventions, (iv) knowledge/beliefs about professional help, (v) attitudes which facilitate recognition/help-seeking and (vi) knowledge of how to seek information. Jorm and colleagues' (1997) mental health literacy framework was explored in a qualitative study in England conducted by Coe (2009), who analysed data from 96 focus group participants about their views of mental illness and help seeking, and concluded that all elements of the framework were reflected in the focus group data and that the framework "provides an appropriate architecture for the range of research and discussion on this topic" (p. 43).

In order to measure mental health literacy levels in Australia, Jorm and colleagues (1997) conducted a cross-sectional survey with structured interviews using a vignette of a person with depression. The representative sample of 2, 031 adults was aged between 18 and 74 years and 56 percent

were female. Recognition of the presence of a mental disorder was high among respondents, with 72 percent recognising the presence of some sort of mental illness. However, only 39 percent correctly identified it as depression. While this may seem like a positive result at a population level, it is of concern that 28 percent thought the person described in the vignette did not have a mental health problem at all. Furthermore, many standard psychiatric treatments with proven efficacy (for example, antidepressant medication, electroconvulsive therapy, and admission to hospital) were more often rated as harmful than helpful. Vitamins and special diets were more often rated as helpful than antidepressants. Participants were given a list of people who might potentially provide help and were asked to rate the various helpers by saying whether each would be helpful or harmful to the person in the vignette. Most of the participants regarded GPs (83 percent) and counsellors (74 percent) as helpful, with psychiatrists (51 percent) and psychologists (49 percent) as less so. These results suggest that public perceptions of mental health specialists may also need to be changed. Jorm and colleagues (1997) concluded that the above pattern of results suggests poor mental health literacy in the Australian population. They asserted that this might lead to unwillingness to accept help from mental health professionals, or to a lack of adherence to advice given. Therefore, if depression is to be recognised early and help sought for it, then mental health literacy levels in the population may need to be increased.

This assertion was explored by Thompson, Hunt and Issakidis (2004) who examined the barriers to initial help-seeking and factors that facilitate

help-seeking for people with depression and anxiety disorders. Participants in their study were 233 patients (101 males and 132 females, with ages ranged from 18 to 77 years) at a specialist mental health clinic, all of whom had delayed seeking professional help by at least a month. Data gathered included age at onset, age at help seeking, primary reason for delay, prompt to seek help and time of first contact with a health professional. The researchers found that the most frequently endorsed reasons for the delay related to lack of knowledge about mental illness (endorsed by 60 percent of respondents) or available treatment, that is, poor mental health literacy. Increasing illness severity or disability was the primary prompt to seek help for the majority of respondents. The average length of the delay across the whole sample was 9.4 years (SD = 11.1). The authors concluded that a lack of mental health literacy contributed to slow problem recognition for people with depression. There are two key limitations to this study that need to be considered when interpreting the results. First, this study relied on retrospective self-report data and, therefore the accuracy of respondents' memory after often long periods of delay may not be reliable. Second, the participants in this research were recruited from a specialist mental health clinic and, therefore, could be argued are a skewed sample of help-seekers. For example, the recruitment method, by definition, excluded those individuals continuing to delay seeking professional help. The only way to directly include them in a study of this kind is to collect data through a large-scale community survey. Despite these limitations this study provides some useful insights into the role of poor mental health literacy as a barrier to seeking professional help for depression.

These findings have been broadly replicated with other samples. For example, Blumenthal and Endicott (1997) conducted 101 structured interviews with participants. Non-help seekers cited the following as the most common reasons for not seeking help: they could handle the episode themselves, did not consider it serious or did not recognise it as an illness. Taken together the above findings suggest that if people with depression were better able to recognise the symptoms and knew that effective treatments were available and where to find them, they may be more likely to seek professional help.

Perhaps the most significant barrier to seeking professional help is stigma (Lasalvia et al., 2013; Sartorius, 2007; Szeto & Dobson, 2010). Stigma is a mark of shame, disgrace or disapproval which results in an individual being rejected, discriminated against, and excluded from participating in a number of different areas of society (World Health Organization, 2001). Many people with a mental illness report the associated stigma as being as bad, if not worse, than the illness itself (Stuart, Arboleda-Florez, & Sartorius, 2012; Szeto & Dobson, 2010). Social psychologists tend to make a distinction between stereotyping, prejudice and discrimination (Ottati et al., 2005; Thornicroft, 2006), all of which are considered part of the stigmatisation process. A stereotype of people with mental illness can be defined as a cognitive representation of this group that is stored in memory. This cognitive representation, which is often a socially shared one, depicts individuals with mental illnesses possessing certain traits (for example, dangerousness) or engaging in certain behaviour (for example, talking to oneself). In contrast,

prejudice against people with mental illness refers to a negative affective reaction, evaluation, or attitude towards this group of people (for example, that people with a mental illness are unreliable and untrustworthy) (Ottati et al., 2005). Finally, discrimination refers to negative behaviours or actions directed toward people with mental illness (for example, refusing to hire someone with a mental illness). Ottati et al. (2005) argue that stereotyping, prejudice and discrimination are often causally related. For example, an individual who believes that people with mental illness are incompetent (stereotype) might consequently evaluate an individual with mental illness in a negative fashion (prejudice), and therefore refuse to hire that person (discrimination). This conceptualisation of the affective, cognitive and behavioural components of attitudes, including stigma related to mental illness, has been empirically supported (Corrigan, Larson, & Kuwabara, 2010; Dovidio, Major, & Crocker, 2000; Neal, Quester, & Hawkins, 2006; Ottati et al., 2005; Wolkenstein & Meyer, 2009) and is referred to as the tri-component attitude model.

Depression is still largely stigmatised in Australian culture. Lasalvia et al. (2013) conducted a survey of more than 1, 000 adults with depression across 35 countries to investigate their experience of discrimination (the behavioural component of stigma). They found that 79 percent of people surveyed had experienced discrimination, with nearly half reporting discriminatory experiences in their families and the workplace. In addition, between 20 percent and 37 percent of people reported not doing something important, such as applying for a job, because of anticipated discrimination.

This anticipated discrimination is of special concern in the workplace where people often have a fear that the identification of depression will lead to negative employment consequences (that is, discrimination), for example, loss of job or not being considered for promotions (Thornicroft, 2006). A Canadian survey of 1, 010 workers revealed that over half (54 percent) feared their opportunities for promotion would be negatively affected if management was aware of their mental health diagnoses (Thorpe & Chenier, 2011). These fears are not unfounded. Glozier (1998) showed employers identical vignettes of prospective job candidates, with the only point of difference being diabetes in one vignette and depression in the other. He found that prospective job candidates who had the diagnosis of depression were significantly less likely to be hired. In addition, Griffiths et al. (2006) found that 53 percent of their community sample believed that most people think depression is a sign of personal weakness. Thirty-eight percent believed others think people with depression are dangerous. Cleary, Hilton, Sheridan and Whiteford (2008) have asserted that one of the key reasons that organisations do not adopt mental health programs for employees is due to the stigma, ignorance and poor mental health literacy held by leaders and managers within the organisation. This builds the argument for targeting stigma reduction interventions to organisational leaders.

The stigma attached to depression is sufficient to cause many people to keep personal or family distress hidden whenever possible (Trump & Hugo, 2006). For example, a survey of employees found that only 41 percent believed they could acknowledge they have depression and still make progress

in their careers (Carli, 2004). One consequence of this is the perception that such problems are rare in the workplace, and hence of no concern to anyone except those afflicted and health professionals. This was confirmed by the survey undertaken by the Shaw Trust (2006) detailed in Chapter 2. Nearly half of employers responding to this survey thought that none of their employees would experience a mental health problem during their working life, a view clearly contradicted by the evidence.

Carli (2004) reported that three-quarters of 443 American employees who completed an online survey said they delayed or avoided seeking treatment. This is despite their depression interfering with their ability to do their job. Gelb and Corrigan (2008) argued that the delays in seeking treatment, such as those outlined in the above survey, stem from stigma in three ways. First, the more an employee perceives stigma to be widespread in the workplace, the more likely they will be to experience denial, discouragement and beliefs that one's condition is hopeless and that treatment is therefore futile. Second, employees believe that taking time off from work for treatment will raise embarrassing questions or require them to discuss an issue with their employer, which they consider private. Third, they may avoid treatment to ensure that they are not inadvertently seen visiting a mental health professional.

The impact of stigma on help-seeking was further explored in a study conducted by McNair, Highet, Hickie and Davenport (2002). The authors conducted thematic analysis on data collected from 21 community meetings (1, 529 people who provided 911 evaluation forms) and 9 focus groups (69

participants) held nationally and written feedback and online discussions with beyondblue[3]. One of the key themes identified was the experience of stigma, which was evident both in healthcare settings but also as a common barrier in the employment context. Participants gave many examples of instances where they had informed their organisation of their depression which resulted in an inability to get work or to secure a promotion. One participant stated: "*At first I told one lie after another and in the end I decided to come clean and tell the truth, so I told the truth and I've decided it's the worst thing I think I've ever done for future prospects in that company*" (McNair et al., 2002, p. S72). The authors concluded that the widespread experience of stigma contributed significantly to delays in seeking treatment and support at work and a reluctance to continue with treatment if it was sought.

These findings were confirmed in a study conducted by Christiana et al. (2000). They collected self-report data from 3, 516 members of advocacy groups for people with depression and anxiety in 11 countries to examine delays to seeking professional help and the reasons for any delay. For respondents who did not seek help in the first year of onset of symptoms, the median length of delay was 8 years. This is consistent with findings outlined earlier in this chapter (Thompson et al., 2004). Importantly, respondents who reported fear of stigma (associated with embarrassment and shame about their

[3] beyondblue is a national, independent, not-for-profit organisation working to address issues associated with depression and anxiety in Australia. It is a bipartisan initiative of the Australian, state and territory governments with a key goal of raising community awareness about depression and anxiety, and reducing associated stigma.

condition), also reported longer delays to seeking professional help, compared to those who did not report fearing stigma. This difference was statistically significant. There were several limitations to this study. For example, the sample is comprised of patient advocates rather than of all people with depression and anxiety. This means that the results are not necessarily representative of the broader population. In addition, the results are subject to recall bias given the data is based on retrospective reports and no attempt was made to confirm the diagnosis of respondents. Despite these limitations, the results suggest that stigma is a significant barrier to people seeking help for depression, resulting in very long delays to help seeking.

The concepts of stigma and mental health literacy are closely related. For example, Wang, Fink, Adair and Lai (2007), in a Canadian population survey, found that the general public who had sufficient knowledge about depression and appropriate attitudes toward professional treatments were less likely to hold stigmatised attitudes than those with a lower level of mental health literacy. In addition, studies have shown that interventions designed to reduce stigma can also increase levels of mental health literacy. In their evaluation of an online stigma reduction program, Finkelstein and Lapshin (2006) found that the less people knew about depression, the higher their levels of depression stigma. Knowledge about depression significantly improved after completion of the online program. One possible explanation for these findings is that a lack of knowledge and understanding about the nature of depression and its treatment (that is, mental health or depression literacy) underpins the cognitive element of stigma. The nature of this

relationship will be explored in the evaluation study and is reflected in several hypotheses outlined in Chapter 7.

Overall, the above review of the literature supports the argument that the lack of awareness, low mental health literacy and high levels of perceived and real stigma in the workplace contributes to the low number of people seeking treatment for depression (McNair et al., 2002; Whiteford & Groves, 2009).

Reducing Stigma in the Workplace

The reviewed research on the impact of stigma and low mental health literacy in the workplace provides a strong argument for the need for stigma-reduction programs delivered in workplaces (Angermeyer, 2004; Gelb & Corrigan, 2008). Real and perceived stigma in the workplace is a key barrier to people seeking help for depression.

In addition to the lost productivity costs to organisations (as outlined in the previous chapter), Gelb & Corrigan (2008) have identified three stigma-related costs to employers. These are: (i) businesses may be vulnerable to costly lawsuits under relevant laws from employees who have been diagnosed with a mental illness, (ii) as taxpayers, businesses pay to support public hospitals and centres where delaying treatment of mental illness increases costs and (iii) as producers of goods and services, businesses may find that the inability of those with a mental illness to find jobs, and earn an income, reduces the ability of these people to be customers.

This supports the argument that by removing stigma and other barriers to help seeking, organisations can reduce the costs associated with untreated depression. This economic argument is all the more compelling when

examined within the context of the growing organisational movement towards corporate social responsibility (Doane, 2004). There is growing recognition that organisations have a moral responsibility to care for and support their employees and the community they operate in (Downey & Sharp, 2007). As will be described in Chapter 4, organisational leaders have a key role to play because of their ability to shape the workplace culture (Crethar, Phillips, Stafford, & Duckett, 2009; Dellve, Skagert, & Vihelmsson, 2007; Giberson et al., 2009; Hambrick & Mason, 1984). Through demonstrating the positive attitudes and behaviour required to support employees with depression, organisational leaders can create a work climate in which constructive conversations about depression, early warning signs and referral pathways to effective treatments occur. Further, it has been argued that organisational leaders largely drive the promotion and reinforcement of policies, practices and procedures that support the protection of employee psychological health and safety (Hall, Dollard, & Coward, 2010). Thus leaders can also play a key role in supporting an increase in mental health literacy and reducing stigma, and therefore reducing costs incurred by organisations (Gelb & Corrigan, 2008).

Conceptualisation and Predictors of Depression Stigma

The design of effective intervention strategies to reduce the stigma related to depression requires a thorough understanding of the nature and structure of existing beliefs about people with depression. To this end, several studies have focussed on identifying the factors that conceptualise and predict depression stigma. Barney, Griffiths, Christensen and Jorm (2009) used focus

group discussions with 23 adults who had experienced depression. The purpose of the study was to investigate community perceptions of beliefs about depression according to theorised dimensional components of stigma. This information could then be used to inform the design of stigma reduction programs and interventions. A particular strength of the study is its standing as one of the few published studies that have sought to understand the nature of depression stigma by analysing the perceptions and experiences of those with depression, rather than the general community.

Barney et al. (2009) adapted a six-dimensional structured approach to stigma related to health conditions proposed by Jones, Farina, Hastorf, Markus, Miller and Scott (1984). Using a qualitative approach they examined the perspectives of people with depression against the adapted six dimensions: (i) *concealability* (whether the condition is obvious to others, and the extent to which the visibility is controllable), (ii) *course* (the typical pattern of change, and the outcome of the condition), (iii) *difficulties* (the extent to which the condition hinders interaction, communication and other aspects of functioning), (iv) *repellence* (encompasses attributes of depressed people considered repellent, such as demeanour), (v) *threat* (the likelihood, imminence and severity of danger to others) and (vi) *responsibility* (the circumstances under which the condition originated, including attributions or responsibility for the condition).

A condition is generally considered less stigmatised if it is easily concealed, minor and of short duration with a good outcome, non-disruptive, non-repellent, not seen as the fault of the person experiencing it, and not

dangerous to others (Jones et al., 1984). Themes reported by the focus group participants were sorted according to consistency with these six dimensions of stigma. The findings suggested that participants experienced considerable stigma from other people, particularly that others believed that people with depression are responsible for their condition (*responsibility*), are undesirable to be around (*repellence*) and may be dangerous (*threat*). Participants also expressed particular concerns about seeking help in the workplace and the impact of negative attitudes in that context. There were specific concerns that others at work may consider them incapable of good work performance (*difficulties*). These results are broadly consistent with those of other researchers, for example, Corrigan et al. (2010).

Jones et al. (1984) argued that the theme of blame may be particularly important to people with depression because they suspect that support from others (for example, work colleagues) is less likely if people believe them to be responsible for their depression. This suggests that any interventions targeting stigma should provide accurate and understandable causal explanations for depression. The findings also indicated that people with depression hold concerns that others do not find them pleasant to be around (the *repellent* dimension) and are likely to avoid them. The authors suggest that avoidant responses are a consequence of beliefs about the behaviours of people with depression, for example, that people with depression are hard to talk to. It is possible that preferences for avoidance are due to discomfort arising from not knowing what to say or do to assist someone with depression (Wolkenstein & Meyer, 2009). Therefore, educating others about how to

support someone with depression may be helpful in reducing negative responses and should be considered in the design of relevant programs.

The perception that confiding in family, friends and work colleagues about an experience of depression would result in ridicule or being viewed less favourably features very strongly in the study results. Fears of this nature may reduce people's willingness to seek help for depression and were particularly common in relation to work. This is possibly due to a concern that help seeking at work may impact on job opportunities. The researchers concluded that "it is apparent that there is a need to deal with beliefs about these dimensions, particularly in the workplace, and that we need to further verify the intricacies and address them specifically in education programs" (Barney et al., 2009, p. 8).

There are two key limitations to this study that need to be considered. First, participants were self-selected through a depression support group. Given they were already linked in to support mechanisms, their views may not be representative of the wider population who has experienced depression. Second, perceived stigma may or may not accurately reflect the actual responses or attitudes held by other people. There is some evidence of a possibility of an overestimation of stigma by people who are experiencing depression (Barney et al., 2009). Despite these limitations, the findings of this study provide useful insights into the dimensions of stigma that are particularly relevant for depression. These insights will inform the content of the online program for organisational leaders that will be examined in the evaluation study.

The same research team have also investigated a range of potential predictors of two sub-types of depression stigma, perceived and personal. Perceived stigma refers to people's beliefs about the negative attitudes of others, whereas personal stigma refers to what people believe personally about depression. The researchers used datasets from three Australian samples (K. Griffiths et al., 2008): a national sample of 1, 001 Australian adults, a local community sample of 5, 572 residents of the Australian Capital Territory and Queanbeyan aged 18 to 50 years, and a psychologically distressed subset (n = 487) of the latter sample. Personal and perceived stigma were measured using the two subscales of the Depression Stigma Scale (K. Griffiths et al., 2008). Personal stigma was consistently higher among men than women, those with less education (compared to those who were more educated) and those born overseas (compared to those in the sample who were born in Australia). It was also associated with greater current psychological distress[4], less prior contact with people with depression, not having heard of beyondblue and lower depression literacy.

The researchers found that depression literacy was associated with lower personal stigma in the depressed group. They also found that correctly recognising depression and knowledge of beyondblue were associated with less personal stigma and lower social distance (that is, willingness to engage in social contact with someone with depression) in the national sample (K. Griffiths et al., 2008). These findings suggest that programs and initiatives

[4] As measured by the Kesssler 10 Scale (K10). High levels of psychological distress have been shown to be highly correlated with symptoms of depression (Andrews & Slade, 2001).

should aim to increase mental health literacy, thereby reducing levels of stigma. In addition, it suggests that such programs should target those who are less educated, male, born overseas or who have higher current psychological distress. There are two important limitations to this study. First, a low response rate to the surveys (between 22.7 percent and 34 percent) means the results may not be generalisable. Second, it was a cross-sectional study and, therefore, it cannot be taken as definitive evidence of causal relationships between the predictors and stigma.

The above findings about the factors that are associated with higher levels of depression stigma were broadly supported by a large review of population studies between 1990 and 2004 by Angermeyer and Dietrich (2006). They examined the results of 62 studies of stigma and attitudes related to mental illness. The researchers found strong evidence that stigma is positively associated with age and negatively with educational attainment. There was also evidence that men held more negative views about people with mental illness than women. In addition, 30 of the 62 studies examined reported that people had more positive attitudes if they were familiar with mental illness, either through their own experience or that of someone close to them. The findings from Angermeyer and Dietrich's review provide some clues as to strategies best suited to modify existing misconceptions and stigma about mental illness. For example, facilitating contact with people with mental illness can challenge some of the negative beliefs held. This will be addressed in the design of the online program in this thesis and is discussed in more detail later in this chapter.

Martin (2010) extended knowledge in this area further by examining both individual and contextual factors that were associated with the attitudes of managers towards employees with depression. In this survey of 1, 202 Australian managers, data was received from 225 managers, resulting in a 21 percent response rate. Existing measures of stigma were adapted and new items were developed with the aim of reflecting the tri-component model of attitudes (that is, the stereotype/cognitive, prejudice/affective and discrimination/behavioural components, Neal et al., 2006; Ottati et al., 2005). The measure examined managers' cognitive stigma (negative beliefs about depressed employees, for example, '*Employees with depression could snap out of it if they wanted to*'), affective stigma (the negative emotional aspects of dealing with depressed employees, for example, '*It makes me feel awkward working alongside someone who is depressed*') and behavioural stigma (intentions for action related to depressed employees, for example, '*I would not employ someone if I knew they had been depressed*').

Results indicated that stigma towards employees with depression was associated with managers' having a internal locus of control, reporting high levels of stress and being reticent to seek help for any personal concerns. Managers who perceived their organisations to have unsupportive depression disclosure norms reported higher levels of stigma and those whose organisations had a clear mental health strategy reported lower levels of stigma. These results are broadly consistent with those of Barney et al. (2009), who found that most stigma experienced by people with depression was related to attributes of blame and personal responsibility for the condition.

In addition to the above findings, Martin (2010) found that females, more educated managers, and managers who worked in the public or community sectors generally demonstrated lower levels of mental health stigma. These results are consistent with the broader depression stigma literature reviewed above. It was also reported that managers who had some prior experience with depression were less likely to report negative attitudes towards employees with depression. This finding is consistent with a large body of previous research (for example, Angermeyer & Dietrich, 2006; K. Griffiths et al., 2008).

Limitations to Martin's (2010) study include a low response rate (21 percent) and potential for response bias in that managers with high levels of stigma may have been less likely to participate in the research. Overall, Martin's (2010) research supports the need for stigma reduction education programs in the workplace, particularly those targeting managers. For example, 43 percent of managers stated that depression was an appropriate topic for discussion in the workplace. Further, Martin's (2010) research highlights the importance of contextual factors in moderating attitudes in the workplace. Much of the previous research has focussed on the individual characteristics that predict stigma. However, this only tells part of the story, as a manager may have strong negative attitudes towards employees with depression, but working in a strong organisational culture that is supportive of mental health may diminish the strength of the attitude and increase the likelihood that it is suppressed in the workplace. This research also highlights the importance of targeting interventions to organisational leaders, as they

play a critical role in shaping workplace culture, norms and practices. The importance of contextual factors in the implementation of learning from workplace training programs will be further discussed in Chapter 5. Both individual characteristics and contextual factors will be explored in the current study when evaluating the effectiveness of the online workplace mental health program.

As outlined previously, managers' attitudes toward employees with depression cannot only influence employees' experiences in the workplace and reluctance to disclose experiences to colleagues, but also their willingness to seek help (Barney et al., 2009; Gelb & Corrigan, 2008).

Descriptive research on the nature and conceptualisation of stigma, as outlined above, is only the first step to understanding and addressing stereotypes, prejudice and discrimination. An understanding of why people stigmatise others, such as those with depression, is also required. The Unitary Theory of Stigma (Haghighat, 2001) provides a useful theoretical framework for understanding the phenomenon of interest.

The Unitary Theory of Stigmatisation

Haghighat (2001) has proposed a theoretical explanation for the process of stigmatisation of mental illness, called 'Unitary Theory' (as outlined in Figure 1). His fundamental argument is that self-interest, particularly as expressed in terms of economic exploitation, drives the stigmatisation process. He asserts that there are four 'origins' that underpin the self-interest concept: constitutional, psychological, economic and evolutionary.

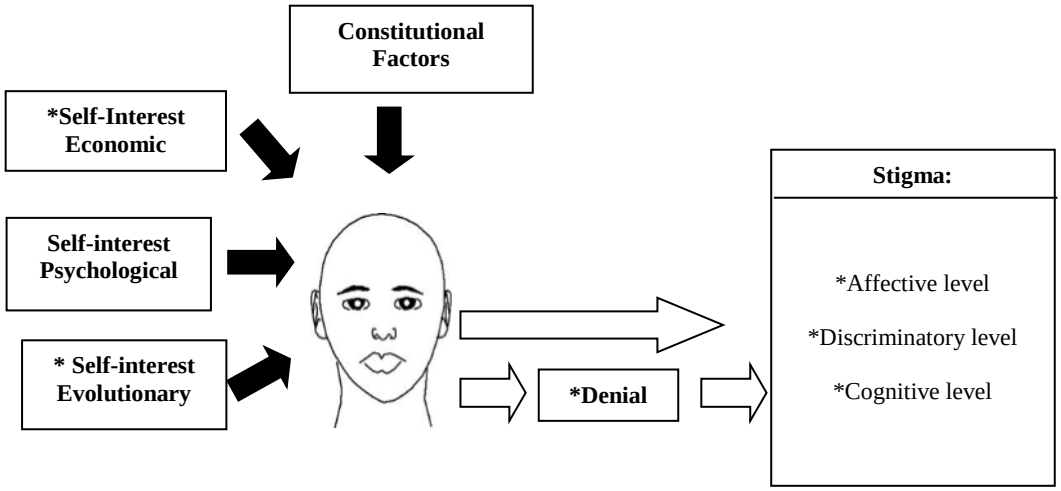

Figure 1. Haghighat's (2001) principle of self-interest, structure of stigmatisation and potential targets of anti-stigmatisation strategies (the latter are denoted by an asterisk).

Constitutional origins, which he argues are biological, interfere with the capacity for 'proper' social perception and information processing. In support, he cites research suggesting that the brain weighs negative evaluations in preference to positive (Kanouse & Hanson, 1972). Further, the brain, attempting to cope with the influx of data (particularly in the age of the internet and real-time communication), categorises objects and events in order to economise on resources of memory and perception and provide quick and easy stereotypes at the expense of sophistication and depth (Thornicroft, 2006). He also refers to the cognitive psychology literature that demonstrates

that the brain also tends to associate rare[5] objects, identities or experiences, for example, people with a mental illness with negative events (which are rarer than neutral and positive events) (Hamilton & Gifford, 1976; Stroessner & Mackie, 1993). These 'constitutional' origins are likely to lead to judgements that are unfair on others, yet they can be adaptive by the very small probability of protection they could offer.

The second basis of self-interest consists of 'psychological origins', which relate to the fact that humans are willing to use the 'unfortunate other' to feel happier about themselves (Dovidio et al., 2000). People who hold stigma benefit from the presence of the stigmatised as they provide them with 'psychological dividends', that is, examples the stigmatiser could consider as 'worse' than themselves in order to improve their view of themselves. To reduce the tension of being confronted by the stigmatised, they are avoided and to reduce any feelings of guilt this may produce, attributes of blame and responsibility are put on the stigmatised.

The third type of origin, economic, is based on the human tendency to increase one's access to resources. The stigmatisation of rivals is used as a weapon in socio-economic competition. Haghighat (2001) argues that stigmatisation is likely to be more intense in more competitive, self-seeking societies or contexts, moderated by the ease of availability of resources.

The final origin, evolutionary, is a tactic for survival and reproduction, and it is implied that this is underpinned by a genetic push to discriminate.

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[5] Both actually rare or perceived to be rare.

Those that "are poor bets genetically are avoided and there is competition with potential rivals for resources, all in the service of genetic interest" (Haghighat, 2001, p. 208). This component of Haghighat's (2001) theory is similar to Neuberg, Smith and Asher's (2000) 'biocultural' theory of stigma, in which it is argued that people will stigmatise those individuals whose characteristics and actions are seen as threatening or hindering effective functioning of their group.

These four origins, Haghighat (2001) argues, point to the individual's drive to seek personal gain and is the basis of his Unitary Theory of Stigmatisation. The central tenet of the theory is the pursuit of self-interest: "Stigmatisation involves self-sheltering and self-seeking behaviour…the stigmatiser also draws secondary benefits from stigmatisation by avoiding possible loss, danger and victimisation and by increasing his or her chances of economic survival" (Haghighat, 2001, p. 209).

The basis and structure of stigma need to be reflected in stigma reduction interventions, in order for them to be credible and effective. Based on the structure of stigmatisation argued in the Unitary Theory and the construct validity of the affective, cognitive and behavioural (or discriminatory) components of attitudes (as outlined earlier in this chapter), Haghighat (2001) argues that six levels need to be considered in stigma reduction interventions: cognitive, affective, discriminatory, denial, economic and evolutionary.

An overview of these six levels follows (with a particular emphasis on the first two as they are most relevant to the evaluation study). The first is the

cognitive level commonly targeted through educational interventions such as social marketing campaigns or workshops about mental illness. Haghighat (2001) noted that education campaigns are likely to have, at the very least, the effect of challenging stigmatisers' attitudes, proposing alternative attitudes and emphasising the presence of anti-stigmatisation pressure groups. He argued, however, that in order to actually *change* attitudes a new emotional experience is required, not just an alternative explanatory model (through a cognitive intervention).

To this end, the second level of intervention, affective, is fundamentally psychological, or emotional, in nature. The research relating to interventions involving direct contact with people with a mental illness is highlighted (which is detailed in the next section of this chapter) and articulates the following dilemma: "on the one hand, if we present the public with dramatically improved patients they are likely to subtype them as 'exceptions'; on the other hand, if we work from within the stereotype and present the public with 'typical' patients, there might be some positive shift in the stereotype but there is also a risk of reinforcing the stereotype" (Haghighat, 2001, p. 211). In an attempt to resolve this dilemma, he argues that the contact should happen with 'an equal status peer' (an argument originally proposed by Allport, 1954). He also argues that interventions of this nature need to provide forums for the expression of fears and worries and, therefore, address the affective content of their attitudes.

The third level is that of discrimination and requires legislative interventions such as anti-discrimination legislation. The fourth level is denial

and draws on linguistic interventions, involving changing the stigmatised language used, for example changing ‘a depressive’ to ‘a person who has experienced depression’. The fifth, economic, level requires political intervention, such as the reduction of competitive environments where self-interest is intensely pursued, and where discrimination is likely to rise. Finally, the evolutionary level requires intellectual and cultural intervention which Haghighat (2001) argued would involve the creation of ideologically favourable societies opting for non-stigmatising behaviours.

Overall, Unitary Theory presents a credible explanation of the structure of the stigmatisation process and some useful insights into the design of stigma reduction interventions. Crisp (2001) concluded that the proposition that the pursuit of self-interest is the fundamental basis of all stigmatisation is plausible. An examination of the literature on effective stigma reduction approaches and the implications of this literature, and the Unitary Theory, for the design of the evaluation study will be considered in the next section.

Despite its promise, Crisp (2001) has critiqued Haghighat’s (2001) Unitary Theory on two counts. First, he questions the treatment of biological contributors in the theory, arguing that a distinction between ‘constitutional’ and ‘biological’ origins is a false one. In addition, he questions the logic of presenting economic origins (that is, that stigma can be seen as a ‘weapon’ in socio-economic competition) as distinct from evolutionary ones. Crisp argues that this is an important connection to make as it assists with the understanding of how evolutionary biological origins have helped to serve humankind’s self-interest.

The second of Crisp's (2001) criticisms is that Haghighat (2001) has not fully articulated his explanation of free-will and choice in the context of the Unitary Theory. This concept is central to people's tendency to blame people with a mental illness for the illness (Barney et al., 2009), implying an element of choice. Crisp (2001) also argued that Haghighat (2001) should have gone further in examining the relationship between 'psychological origins' and the stigmatiser's own personality. He asserted that this further consideration would have added weight and substance to the theory.

Strategies to Reduce Depression-Related Stigma

Three key strategies are used to reduce the impact of depression stigma: protest, education and personal contact (Corrigan & Penn, 1999). These fit comfortably in to the Unitary Theory of Stigmatisation: with protest consistent with Haghighat's (2001) discriminatory level, education consistent with his cognitive level, and, personal contact with his affective level. The first strategy, protest, refers to advocacy groups and individuals protesting against inaccurate and hostile representations of depression and other mental illnesses as a way to challenge the stigma they represent. There are two key messages inherent in this approach: the message to the media is 'stop portraying negative images of people with a mental illness' and the message to the general public is to 'stop believing these messages portrayed in the media'. One well-known example of this approach in the Australian context is Stigma Watch (http://www.sane.org/stigmawatch), run by SANE Australia and funded by the Australian Government. The purpose of this initiative is to provide feedback to the media regarding their portrayals of people with a

mental illness, both positive and negative. They rely on hundreds of 'StigmaWatchers' around Australia to regularly report on media portrayals.

Corrigan and Shapiro (2010) reported the protest success of National Alliance on Mental Illness' (NAMI) StigmaBusters, which played a prominent role in getting the American Broadcasting Corporation (ABC) to cancel the TV program '*Wonderland'* because of the offensive portrayal of a man with mental illness. There have been limited empirical studies evaluating the effectiveness of the protest approach alone to stigma reduction. The evidence for this approach is largely anecdotal, with Corrigan and Shapiro (2010) suggesting that protest campaigns have been effective in getting stigmatising images of mental illness withdrawn from the media. This type of approach aims to influence behavioural contributors to stigma and is consistent with the discriminatory level, as outlined in the Unitary Theory of Stigmatisation.

The second strategy used to reduce depression-related stigma is education, for example, providing information that contradicts the stigmatised belief or attitude. This usually involves challenging the myths of mental illness (for example, that employees with depression are unpredictable and unreliable) with facts (for example, that many employees with depression remain productive at work). Educational strategies have included public service announcements, books, flyers, videos, websites, podcasts, lectures and presentations. The rationale for education programs draws on the research suggesting that people with a better understanding of mental illness (that is, higher levels of mental health literacy) are less likely to endorse stigmatised views of people with a mental illness and less like to discriminate (Corrigan &

Penn, 1999; Finkelstein & Lapshin, 2006; K. Griffiths et al., 2008; Jorm, 2000). The key benefits of the education approach are their low cost and broad reach. This type of intervention targets the cognitive level outlined by Haghighat (2001).

The third strategy used to combat stigma is personal contact with someone with a mental illness such as depression. Members of the public who interact with people with a mental illness are less likely to endorse stigmatising beliefs and more likely to endorse positive statements about this group (Angermeyer & Dietrich, 2006; Couture & Penn, 2006; Hand & Tryssenaar, 2006; Wolkenstein & Meyer, 2009). This approach often involves listening to a presentation or speech delivered by someone with a mental illness about his or her experience of the condition. This strategy aims to address Haghighat's (2001) affective level of stigma reduction intervention.

Weiner (1995, cited in Corrigan & Shapiro, 2010) developed a model of causal attribution that outlines a set of paths that brings together the three components of stigma outlined earlier in this chapter, and the three approaches to stigma reduction outlined above (see Figure 2). He argued that when presented with an event (for example, a person with a mental illness), people try to determine who is responsible. In doing this, they make attributions about the cause and controllability of the event. Attributing personal responsibility for a negative event (for example, "that person is to blame for her crazy behaviour") leads to anger ("I'm sick and tired of that kind of irresponsibility") and diminished helping behaviour ("I'm not going to interview her for that job"). Conversely, attributing no blame for a harmful

event (“He can’t help himself; he’s mentally ill”) leads to pity (“that poor man is mentally ill”) and the desire to help (“I’ll give him a try at a part-time job”).

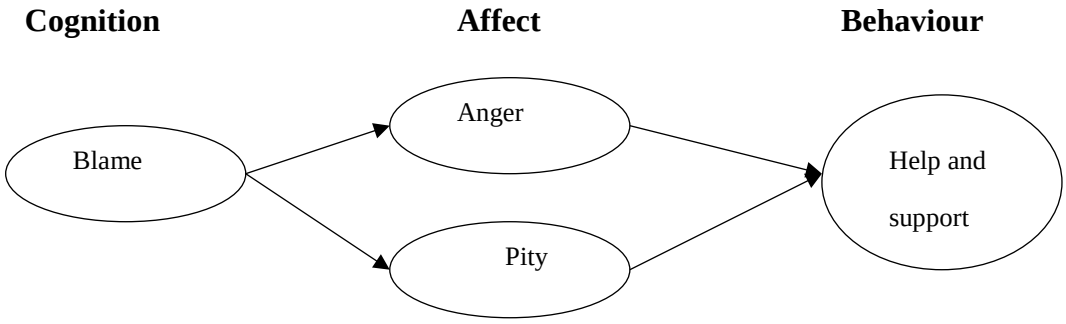

Figure 2. Conceptual model representing the paths between cognition, affect and behaviour (Weiner, 1995, cited in Corrigan & Shapiro, 2010).

The specific association between causal attribution, mediating anger or pity, and subsequent behaviour has been validated with several samples (Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003; Corrigan, Morris, Michaels, Rafacz, & Rusch, 2012; Couture & Penn, 2006). For example, Corrigan, Markowitz, Watson, Rowan and Kubiak (2003), using survey data containing responses to one of four randomly assigned fictitious vignettes (with a danger element, with no danger element, danger without controllability of cause, danger with controllability of cause), tested Weiner’s attribution model in a sample of 518 community college students. Their findings supported the model. They found that information about controllability of cause (of the mental illness) affects beliefs about people’s responsibility for causing their mental illness. These beliefs in turn lead to

decreased feelings of pity and increased feelings of anger and fear. Anger and fear in turn lead to rejecting responses, such as social avoidance, whereas pity leads to more supportive responses. Familiarity with mental illness was positively associated with pity and negatively associated with anger and fear. Given the college sample used, these findings may not be representative of the general population, although the researchers state that they have no reason to believe the attribution process would be different for this population compared to the general population.

Angermeyer, Matschinger and Corrigan (2004) found a similar pattern of results supporting Weiner's attribution model with data from a representative population survey in Germany with 5, 025 community members. This is further supported by other research showing that perception of dangerousness, or the presence of other cognitive elements of stigma, increases the tendency to distance oneself from people with mental illness (Couture & Penn, 2006; Jorm & Oh, 2009; Wolkenstein & Meyer, 2009).

The three approaches to stigma reduction (protest, education and contact) outlined above have been the subject of numerous evaluation studies, including several randomised control trials, with varying results. Corrigan et al. (2001) conducted one of the most cited trials to assess effectiveness of the three approaches. Participants in this research were 152 adults enrolled at an American community college in Chicago. They were randomly assigned one of four conditions: protest, education, contact or control group. A single leader conducted each condition with four to eight participants. Each condition included two parts: a 10-minute presentation followed by a 5-minute

discussion. The protest presentation included 14 slides that reviewed disrespectful ways in which people with mental illness were portrayed in the media. These were followed by condemnations against the media by the leader. The education presentation included seven myths from the literature and the corresponding facts that challenge that myth. Finally, the contact condition involved a presentation by someone with a mental illness discussing his or her personal story. This was followed by 5-minute discussion in which participants questioned them about living with a mental illness. Results showed that the contact intervention produced the best results, with the education condition also leading to improvements in stigma, although not as strong as the contact intervention. The protest condition yielded no significant changes in stigma. There are two key limitations of this study: first, it is unknown if the benefits of the brief education and contact interventions were sustained over time. Further research is required to determine this, secondly, these interventions were not conducted 'in the field'. An important area of future research is the conduct of such evaluation trials in 'real-world' environments, such as the workplace. Both these limitations will be addressed in the evaluation study.

Despite these limitations the results of the study described above are promising, suggesting that contact and education interventions can lead to stigma reduction. These results were replicated in a similar study conducted by the same research team (Corrigan et al., 2002). They randomly assigned 213 participants to five conditions: education about the personal responsibility element of stigma, education about the dangerousness element of stigma,

contact with someone with a mental illness where personal responsibility was discussed, contact with someone with a mental illness where dangerousness was discussed and a control group. Results confirmed that contact produced better results in terms of stigma reduction than education and control.

One limitation of contact interventions is that they are not scalable or exportable. As they involve facilitating face-to-face contact between people they are, by their very nature, costly labour-intensive interventions (Amichai-Hamburger & McKenna, 2006). Several studies have attempted to address this limitation. For example, Corrigan, Larson, Sells, Niessen and Watson (2007) demonstrated, through a randomised control trial with 244 community college students, that videos of contact interventions (of a person talking about their mental illness) yielded a broad positive impact on stigma change, with improvements on two proxies for discrimination, segregation and coercion. This improvement was sustained at 1-week follow-up. In addition, the researchers found a positive improvement in attributes of blame and responsibility for participants in the videotaped education condition. This effect was also sustained at 1-week follow-up. While no effect sizes were reported in the published article, ‘small’ (that is, less than 0.2) effect sizes have been reported for this study and others in a meta-analysis conducted by Corrigan and colleagues (2012). These results have broadly been replicated elsewhere (Clement et al., 2012) and, overall, suggest the filmed version of contact and education interventions can lead to stigma reduction. This approach addresses the limitations of the face-to-face contact approach (that

is, that they are not scalable or exportable) in that filmed videos of someone with a mental illness talking about their experiences can be reproduced and disseminated widely at relatively low cost and effort.

Given the ultimate aim of many stigma reduction programs is to reach as many people as possible, designing and evaluating delivery models that are scalable is fundamental to the task of reducing stigma at a population level (Corrigan & Gelb, 2006). As will be demonstrated in Chapter 4, the internet offers unique opportunities for disseminating mental health-based information, with some evidence suggesting that people with higher levels of stigma prefer to access mental health information on the internet (Klein & Cook, 2010). Amichai-Hamburger and McKenna (2006, p. 838) have concluded that "the internet has an enormous potential for providing tools to create effective contact".

Several studies (Bayer, Poyraz, Aksoy-Poyraz, & Arikan, 2009; Finkelstein & Lapshin, 2006; K. Griffiths, Christensen, Jorm, Evans, & Groves, 2004; Kim & Stout, 2010) have demonstrated reductions in stigma after exposure to an education program delivered online. For example, Bayar et al. (2009) randomly assigned mental health professionals to either an experimental or control group. The experimental group received an educative email about mental illness and mental health. The experimental group, compared to the control group, demonstrated less stigma towards people with a mental illness. The researchers concluded: "the internet may be a powerful outreach tool in disseminating anti-stigmatisation information" (Bayer et al., 2009, p. 229).

Education intervention programs on their own have been shown to produce modest short-term improvements in attitudes (Tanaka, Ogawa, Inadomi, Kikuchi, & Ohta, 2003). Research on the immediate effects of educational programs found that these kinds of programs produce small reductions in the stigma of mental illness (Corrigan et al., 2001). These positive effects, however, returned to baseline when 2-week follow-up measures were examined (Corrigan et al., 2002). As will be discussed in Chapter 4, the lack of research supporting longer-term benefits is a common problem across most workplace training initiatives and will be addressed in the evaluation study.

The evaluations reviewed above suggest positive effects for contact interventions and positive (but smaller) effects for education interventions. This was confirmed in a meta-analysis of stigma reduction intervention outcome studies conducted by Corrigan and colleagues (2012), comprising 72 articles from 14 countries and a total of 38, 364 participants. They found that both education and contact had positive effects on reducing stigma. However, contact yielded better results than education. Further, Corrigan and Penn (1999) have suggested that contact may augment the effects of education on reducing stigma. To this end, Chan, Mak and Law (2009) examined the effects of three versions (education, education-video and video-education) of a school-based mental illness stigma reduction program. The three versions involved the following: the education condition included a 30 minute education session (which challenged common myths) followed by 5 minutes of questions. The education-video condition attending the education session

that was immediately followed by a 15 minute video about four people who had been diagnosed with schizophrenia and talked about the illness and their recovery. Finally, the video-education condition received the same interventions as the education-video condition but in reverse order. Study participants were 225 students from three high schools in Hong Kong. They completed knowledge and stigma scale pre, immediately post and 1-month following the intervention.

Results suggest that adding video-based contact to an education intervention can significantly improve the program effectiveness, but only when the video-based contact was presented after, but not prior, to the education intervention. The authors speculate that this may be because the education-video sequence may have provided sufficient information and background to allow for deeper processing of the video content (Chan et al., 2009). There are several limitations to this study. For example, there was not a 'no-intervention control group' included in the study. The authors stated that this was not possible as the schools expected students to receive some intervention for participating in the study. In addition, randomisation only happened at a class level, not a student level. This might have resulted in inflated results. However, the authors state that it is unlikely that the intervention effects were due to chance given the large *F* values. Overall, this study provides promising support for a combined education and contact approach such as the one included in the current study.

Such a combined approach was the subject of an intervention evaluation conducted by Pinfold et al. (2003) in the UK. They designed and delivered

short (4 hour) mental health education workshops (delivered in two sessions) to 109 police officers in South East England. The workshops were co-delivered by people who had a mental illness and included them describing to participants what it was like to experience a mental illness. Participants were asked to complete pre and post (four weeks after the intervention) surveys assessing various elements of stigma, for example, social distance, views on treatment and attitudes towards someone with a mental illness. The results demonstrated that the education program had a small positive impact on the police officers' attitudes about people with a mental illness. In addition, they reported feeling more knowledgeable about mental illness. Officers also self-rated the impact of the training on their police work. Ratings were highest for changing how officers communicated with people with a mental illness after the training. These findings were consistent with those of Jorm, Kitchener, Fischer and Cvetkowski (2010) who evaluated an e-learning education program which also included short video clips of people with a mental illness talking about their experiences.

These studies evaluating a combined approach show promise, however further research is required to evaluate the effectiveness of a stigma reduction intervention that combines both education and personal contact approaches.

Corrigan et al. (2010) also argued that stigma reduction strategies are more effective when they are 'target-specific', that is, tailored to specific groups such as police officers, employers and landlords. This provides further support for the approach adopted in the current study to evaluate a stigma reduction program specifically targeting organisational leaders.

In summary, there are three broad approaches to stigma reduction. The effectiveness of protest strategies is unclear and requires further research. Education appears to improve attitudes on a short-term basis and can be implemented on a large-scale and be cost-effective. Contact interventions have the most evidence to support their effectiveness, however, they are difficult to scale-up to maximise their impact. The use of filming and the internet to deliver interventions shows promise as does the combination of education and contact approaches.

Implications for the Design of the Online Program in the Evaluation Study

The findings and recommendations from Martin (2010) suggest that stigma reduction interventions delivered in the workplace context should differentiate between the three components of stigma. For example, she states that behavioural intentions could be influenced more strongly by policy outlining how managers should behave towards an employee with depression. Training programs, on the other hand, might be more effective at challenging the negative beliefs about an employee with depression and strategies designed to create empathy for employees with depression might reduce affective stigma. The current study will attempt to design specific components of the online program to target the three different components of stigma. For example, it will combine education and contact strategies via online delivery in an attempt to capitalise on the benefits of each approach. The use of an online delivery approach will aim to ensure the program, if shown to be effective, is ultimately scalable across Australian workplaces.

This approach to the design and delivery of a stigma reduction program also reflects the Unitary Theory of Stigmatisation. The six levels of intervention outlined by Haghighat (2001, see Figure 3.1 for overview) will be incorporated into the online program in the current study in the following ways:

Cognitive Level: The facts about depression (for example, its prevalence, course, impact on work performance, signs and symptoms, and effective treatments) will be included in the content of the online program. This information will be designed to challenge commonly held stigmatised beliefs about the nature of depression, the people who experience it and its impact in the workplace. It will also provide participants with an alternative explanatory model for depression at work and, therefore, will improve mental health literacy.

Affective Level: Filmed interviews with organisational leaders talking about their personal experiences of depression and recovery from it will be included in the online program. The leaders featured in the videos will be equal-status peers of the participants. This content will be designed to challenge the affective component of stigma by creating an emotional connection with the 'lived experience of depression'.

Discriminatory Level: Accurate information about the legal responsibilities of organisational leaders in relation to managing depression in the workplace will be included in the online program. This will include an overview of possible ramifications of any violations of these laws, for example, of the *Disability Discrimination Act*.

Denial Level: The use of appropriate, non-stigmatising, language will be modelled throughout the program, both in the written content but also the filmed case studies of organisational leaders. For example, people will not be referred to as ‘depressives’ or ‘the mentally ill’, instead ‘people with an experience of depression’ will be adopted in the program.

Economic Level: While this intervention level, as articulated by Haghighat (2001), is fundamentally political in nature, it can also be adapted to the workplace context and the sphere of influence of organisational leaders. In this regard, program participants will be presented with information about how organisational leaders can shape a healthy and productive workplace culture where employees with depression are appropriately managed and supported to get the assistance they may need. Information about the link between an overly competitive workplace culture, and increased discrimination and stigma (Haghighat, 2001) will be highlighted and alternative approaches to organisational development will be reinforced.

Evolutionary Level: Similar to the economic level intervention, this level will be reflected in the inclusion of program content encouraging co-operative, rather than competitive, work cultures. For example, an organisational culture where self-interest is not rewarded. The link between self-interest and depression-related stigma and discrimination will be highlighted to participants.

Conclusion

Reducing stigma is essential for improving the quality of life of people with depression by increasing the likelihood of them seeking help. This will

also aim to ensure that the workplace costs associated with stigma are minimised. Much is now known about how stigma is conceptualised and predicted. In this chapter, it was argued that the Unitary Theory of Stigmatisation is a credible theoretical framework through which to understand and explain the structure of stigma. The design of the online program in the current research will be based on this theory and the empirical evidence supporting the most effective approaches to stigma reduction including increasing mental health literacy. The review of this literature suggests that, in order to be effective, stigma reduction programs should target multiple levels of stigma (as outlined in the Unitary Theory), combine education and contact interventions and reflect the personal experiences of equal-status peers. Several hypotheses and research questions related to stigma reduction, and the other potential impacts of the online program, will be detailed in Chapter 7 and tested in the evaluation study.

Chapter 4: What are Organisations Doing to Address Mental Health in the Workplace?

Introduction

As demonstrated in the previous chapter, poor mental health literacy and depression-related stigma are major barriers to help seeking and, therefore, have significant impacts in the workplace. Despite this, depression is generally not managed well at work. In this chapter it will be argued that interventions can be *ad hoc*, without 'buy-in' from the organisation's leadership team about the rationale for addressing these issues at work. Workplace-based interventions still tend to focus solely on the individual with the mental health problem (for example, through Employee Assistance Programs) or on front-line managers (for example, through the delivery of manager training programs). This chapter will assert that many of these programs are not adequately evaluated, and are unable to be replicated or transferred to other organisational contexts. The approach outlined above to managing employee mental health is, overall, unsustainable.

To illustrate these arguments, two common workplace mental health interventions will be examined: Employee Assistance Programs (EAPs) and mental health training programs. The important role of organisational leadership and the relevance of Bandura's (1977) Social Learning Theory in this context will be presented. It is leaders who shape the organisation's culture and who must model the values and behaviours that underpin that culture. Organisational leaders need to actively support the implementation of any new skills and knowledge promoted during workplace mental health initiatives and embed any changes in the

organisational culture to ensure effectiveness, consistency and sustainability. This chapter concludes with an examination of online technologies as an emerging delivery platform for mental health information and programs in the workplace context.

Employee Assistance Programs (EAPs)

One of the most common employer-provided mental health support services is Employee Assistance Programs (EAPs). About 75 percent of USA employers offer EAPs to their employees (Sharar, 2009) and, in the last twenty years, the number of companies with EAPs has more than doubled (Employee Assistance Society of North America, 2009). It is estimated that 80 percent of the top 100 companies in Australia have an EAP (J. McManus, personal communication, 12 May, 2010). EAPs have evolved rapidly from their origins in the 1960s, as occupational alcohol management programs, to become more comprehensive employee mental health and wellbeing programs. EAPs have expanded their range of services to include marriage and family problems, alcohol and drug dependence, financial and legal problems, and anxiety and depression (Preece, Cayley, Scheuchl, & Lam, 2006). The source of problems discussed in EAP sessions can be both work-related or more personal in nature.

The Employee Assistance Professionals Association of Australia (EAPAA) defines EAPs as "*a work-based intervention program designed to enhance the emotional, mental and general psychological wellbeing of all employees and includes services for immediate family members. The aim is to provide preventive and proactive interventions for the early detection, identification and/or resolution of both work and personal problems that may adversely affect performance and wellbeing*" (Employee Assistance Professionals Association of Australasia (EAPAA), 2010).

Several authors have reported that a high proportion of clients seen by EAPs are experiencing depression (A. Arthur, 2005; Preece et al., 2006). Billings, Cook, Hendrickson and Dove (2008) stated that depression ranks third behind family crisis and stress among the top problems faced by employee assistance professionals.

The original EAPs were 'internal' programs, meaning that services were provided by staff or employees of the organisation, but today, most services are provided by external, outsourced providers (Sharar, 2009). The EAP service usually consists of a 24/7 helpline, time-limited counselling for employees (usually 3-5 sessions) and the provision of management information. Despite their popularity, EAPs have yet to reach their full potential. Most organisations report EAP utilisation rates of between 4-8 percent of their staff (Meyer & Davis, 2002; Schott, 1999). This utilisation rate can be contrasted to what we know about how common depression (6.2 percent of the community experience it in any 12-month period, as identified by Slade et al., 2009) as highlighted in Chapter 2. In the case of depression, employee and manager lack of familiarity with symptoms (that is, poor mental health literacy) may play a role in under-utilisation, as might issues of workplace stigma (Martin, 2010).

Many EAP providers have vehemently argued that EAPs are distinctive from mental health services in that they are 'work based', operating on behalf of an employer for the purpose of identifying troubled employees, motivating them to resolve their difficulties, and providing interventions or referrals to treatment as indicated (Employee Assistance Society of North America, 2009). To examine that assertion, Sharar (2009) sent an online survey to a randomly selected group of 400 EAP practitioners, with a response rate of 55 percent. Results indicated that the EAP practitioners did not distinguish EAP work from other private practice work. The

researchers concluded that EAP is *not* a specialised area of work and the only identified difference between the two was the time-limited nature of EAP work. Sharar (2009) concluded that EAPs are not a work-related service; rather, they are a mechanism for employers to offer time-limited free counselling to employees.

Notwithstanding the high adoption rate of EAPs by employers, the programs remain largely under-evaluated. Further, there are considerable methodological questions about the 'evaluation' studies that have been conducted (MacDonald, Lothian, & Wells, 1997). Important questions remain as to the contemporary EAPs' true impact on outcomes and costs. The Employee Assistance Society of North America (2009) states that many investigations have demonstrated that "the typical level of financial return on investment (ROI) is $3 or more in return for each $1 invested in the EAP" (Employee Assistance Society of North America, 2009, p. 8). However, in the same publication it is stated that there is substantial criticism of the lack of controlled experimental designs and standardised metrics to back up these claims, and that the same could be said of the "entire field of worksite health promotion" (Employee Assistance Society of North America, 2009, p. 15). In addition, in personal communication, the President of the Employee Assistance Professionals Association of Australasia stated that "there is no current data in relation to direct dollar benefits but the industry estimates that the benefit is likely to be somewhere between $10-16 of benefit for every dollar expended" (J. McManus, personal communication, 12 May, 2010).

Many researchers and authors have made claims regarding the benefits of implementing an EAP, however, most of these are statements lack supporting evidence. For example, Schott (1999) stated that EAPs provide tangible benefits to the

organisation in the form of reduced absenteeism and increased productivity, but did not provide any evidence to support this claim. Similarly, Meyer and Davis (2002) claim that 40 percent of companies using EAPs also reported lower workers' compensation costs and over half the firms reduced their disability costs, with no evidence that this is the case. Johnson (2008, p. 273), in his descriptive analysis of EAPs, makes a claim that productivity is "enhanced" through the use of EAPs. However, he provides no rationale for making this assertion or evidence to support it.

Studies have been conducted to examine the cost of EAPs (for example, French, Zarkin, Bray, & Hartwell, 1999; Hartwell et al., 1996). However, the return on these costs has not been examined in any systematic way. In addition, what is actually being delivered by the EAPs has not been investigated within this context. Many of the published articles about the benefits of EAPs are written by providers of these programs (Kirk & Brown, 2003), calling into question the legitimacy of the findings. For example, MacAlister (1999) discussed several benefits of EAPs including reducing the amount of time lost through workplace accidents, absenteeism and presenteeism. However, the author offers no evidence to support these claims. He goes on to state that the "anecdotal evidence is strong in the UK: comments from employers indicate the value placed on the services as does the continued high service usage" (MacAlister, 1999, p. 466). Many of the claims made by the EAP providers are not supported by evidence, for example, reduced absenteeism, presenteeism and reduced workers compensation claims (Employee Assistance Professionals Association (UK), 2010). In fact, the contrary may be true. MacDonald, Lothian and Wells (1997) conducted an evaluation of an EAP at a transportation company. They found that EAP clients had a higher rate of problems before, during and after

treatment, compared to a matched control group. In addition, performance problems (for example, sick days, worker's compensation and incomplete work days) did not decline after treatment.

Very little has been published on the effectiveness of EAP services on workplace performance based on employer investment in EAPs. Most of the published literature in this area focuses on an analysis of utilisation rates (usually very low in comparison to the estimated prevalence of mental health problems in organisations) and costs. Providers usually calculate these costs by dividing total costs by number of eligible employees, leading to a cost per head analysis. This does not provide any evidence of the effectiveness of EAPs.

A benefit of EAPs (often promoted by providers of these services) is their function as an early identification and intervention tool for employers. The argument is that if an employee accesses professional assistance early (for example, for depression), then they will avoid the levels of impairment, lost productivity and absenteeism that often accompany the illness (Employee Assistance Professionals Association (UK), 2010; Employee Assistance Professionals Association of Australasia (EAPAA), 2010). Preece, Cayley, Scheuchl and Lam (2006) investigated the outcomes of an EAP program on employees experiencing depression. They analysed clinical information captured on the client database of a large Canadian EAP provider. Their sample consisted of 1, 411 EAP clients from a range of different organisations. Three hundred and eighty-five employees were identified as depressed (27 percent) and 1,026 were identified as non-depressed (as categorised by the EAP clinician). Clear differences between employees identified as depressed and other employees seeking assistance from an EAP were identified. These differences were

evident both at intake and after intervention. Employees with depression had consistently higher levels of impairment, work absence and lower levels of functioning compared to those without depression. The authors reported that both groups benefited from the EAP intervention, with a decrease in impairment and work absence rates and an increase in levels of functioning. This is one of the few studies regarding EAPs that present some data supporting an improvement in work performance as a result of utilising an EAP service. However, despite these findings the depressed employees continued to have higher scores on work impairment and work absence on completion of the EAP intervention. The authors state that their research raises the question about whether a longer, more intensive psychological treatment program should be available to depressed employees, as opposed to the brief, time-limited service currently offered. There are limitations with this piece of research that raise questions about the generalisability of findings and the appropriateness of study design. First, depression was recorded by the clinician without the use of any standardised measurement of symptoms or diagnostic checklists, raising significant questions about the validity of the classification methods used. A second and related limitation of the study is the method used to measure work absence and work impairment. Again, this was a subjective, non-standardised assessment made by the clinician on a four-point scale (*none, mild, moderate, severe*). Last, there was no comparison with a group of employees who sought assistance elsewhere (for example, through their family doctor or a local psychologist), or those who sought no seek treatment.

Despite being the most popular method used by employers to support the mental health of employees, EAPs remain under researched and poorly evaluated (Kirk &

Brown, 2003). Many claims are made about the benefits of implementing an EAP, however, very few claims are supported by evidence. An additional concern is that EAPs target the individual employee with depression (Hilton, Scuffham, Sheridan, Cleary, & Whiteford, 2008), without consideration or intervention at the organisational level. Feedback is not generally given to the organisation about potential contributors or stressors in the workplace, as reported by employees. This limits the usefulness of the service as a method of measuring the overall 'mental health' of the organisation. They also do not provide a mechanism to target and reduce the workplace barriers for seeking help, such as lack of knowledge and stigma about depression (J Wang et al., 2006). Further research is required to develop standardised performance measures and to compare clinical, occupational, and economic outcomes of EAPs (Myette, 2008).

Workplace Mental Health Training Programs

Another common workplace mental health intervention is the delivery of mental health workshops to employees. These are often delivered by external consultants (including in some instances by the organisation's EAP provider) and often are a one-off training session with no follow-up activities. Generally, these programs can be divided into two categories (Sanderson & Andrews, 2006). The first group target individual employees seen to be 'at risk', for example, programs directed at enhancing coping capacity usually through stress management training (Corbiere, Shen, Rouleau, & Dewa, 2009; Manocha, Gordon, Black, & Malhi, 2009; Mino, Babazono, Toshihide, & Yasuda, 2006). The second group are aimed at all employees to improve awareness, decrease related stigma and increase participants' likelihood of assisting

someone they are concerned about in the workplace (Field, Highet, & Robinson, 2002; Kitchener & Jorm, 2004; Nakayama & Amagasa, 2004).

Coping-based programs targeting at risk employees. The coping-based programs often include principles from cognitive behavioural therapy (CBT) such as stress management, relaxation training, social skills development, time management, and encouraging staff to achieve optimal work/life balance. The purpose of teaching effective coping skills before exposure to stress is to prepare the employee to respond more positively to negative stress events and reduce the psychological impact of these events (Barry & Jenkins, 2007). The evidence supporting these approaches in reducing negative mental health outcomes is mixed (Murphy, 1996; van der Klink, Blonk, Schene, & van Dijk, 2001). Findings suggest that while these approaches can temporarily reduce experienced stress, long-term effects remain unclear (Noblet & LaMontagne, 2006). One example of workplace-based workshops targeting individual employees where the longer-term benefits have been measured is that of the 'Promoting Adult Resilience' (PAR) program. This strengths-based resilience program integrates interpersonal and cognitive behaviour therapy. The content of the 11-week program includes one-hour sessions covering the following topics: understanding personal strengths and resilience, challenging self-talk, problem-solving, managing stress and preventing and managing conflict. While this program does not focus specifically on depression in the workplace, one of its key aims is to reduce mental health problems (including depression) in employees.

In a pilot study of the PAR program delivered to 28 participants in a resource sector organisation, Millear, Liossis, Shocket and Biggs (2008) found a significant improvement in reported levels of coping immediately after the program and this was

maintained at follow-up six month later. Levels of depression and stress fell after the program, and levels of stress continued to fall at the follow-up. Levels of depression were maintained at post-test levels.

While these results are promising, they are based on a small sample from a single organisation. There were not enough volunteers to create a wait-list control group so the researchers constructed a non-intervention comparison group with similar characteristics. Further research is required to confirm the generalisability of findings. In addition, this program targets individual employees' levels of resilience without consideration for the working environment or organisational culture and its impact on the mental health of employees. This approach is likely to limit the sustainability of the positive outcomes for participants. In general, programs that focus on changing individuals' capacity to cope with stress without changing the source of the stress are of limited effectiveness (Barry & Jenkins, 2007) and raise issues of corporate social responsibility. This is a key reason why it is critical to the success of workplace mental health interventions that they have buy-in and support from the senior leadership team.

Mental health education and stigma reduction programs targeting all employees. Other types of workshops commonly delivered in workplaces are those that target all employees (not just those 'at risk' of depression) and aim to improve mental health literacy, decrease stigma and encourage employees to assist a colleague to obtain professional assistance as early as possible (Burton & Conti, 2008; Myette, 2008).

The Mental Health First Aid (MHFA) Program is an example of such a training program. This was designed and developed by researchers at the Centre for Mental

Health Research (Kitchener & Jorm, 2004) in Canberra and, in 2004, a randomised controlled trial of this program in two large government departments was conducted. All employees (approximately 4, 800) were invited to participate in the trial, 301 employees agreed, representing an uptake of 6.2 percent. Participants were randomly assigned to the intervention group (who participated in the training program after completing the pre-test assessment questionnaire) or the wait-list control group (who participated in the training program after completing the follow-up assessment questionnaire). The MHFA training package was designed to address low levels of mental health literacy in Australia. It was delivered in three weekly sessions of three hours each held during work hours, and covered content on helping people in mental health crises and/or in the early stages of mental health problems. Data collection (administered pre-training and in the fifth month after training) included measures of prior history of mental health problems in the participant or their family, confidence in providing help, recognition of a disorder in vignettes describing a person with schizophrenia and depression, belief about the helpfulness of various interventions and a social distance scale to assess stigma. Researchers found that relative to the control group, the intervention group showed greater confidence in providing help to others, greater likelihood of advising people to seek professional help, improved concordance with health professionals in beliefs about treatment and decreased social distance (stigma) from people experiencing depression. Despite these positive findings there are several important limitations to this study. First, the researchers did not record participants' organisational role. There was no targeted recruitment of people in a leadership position, which many authors see as critical for the long-term effectiveness of workplace-based mental health awareness programs (Barry &

Jenkins, 2007; D.L. Kirkpatrick & Kirkpatrick, 2006). A further limitation is that there was no measure of behaviour change, that is, participants' actions or interactions with individuals experiencing a mental health problem following completion of the program.

The same research group investigated an adapted e-learning version of the MHFA program, measuring whether changes in mental health literacy and stigma were sustained over a six-month period (Jorm et al., 2010). The randomised clinical trial with 262 members of the general public assigned to one of three conditions (e-learning, reading the printed MHFA manual and wait-list control) was conducted. The program included information with interactive exercises and contained video clips of people who had mental health problems. Results broadly replicated those pertaining to the face-to-face delivery of MHFA: both e-learning and the printed manual increased aspects of knowledge, reduced stigma and increased confidence compared to the wait-list control. The e-learning program was superior to the manual at reducing the social distance and personal stigma in relation to a person with schizophrenia. The authors argue that this may be due to the inclusion of the video clips in the e-learning program that drew on the evidence regarding the effectiveness of contact-based stigma reduction interventions. Effects that were found at post-test were sustained at 6 months follow-up.

Another popular mental health training program delivered in Australian workplaces is the beyondblue National Workplace Program, which was designed, developed, delivered and evaluated by beyondblue (Dunt et al., 2011; Field et al., 2002). This short (2-3 hour workshop) has been delivered to over 400 organisations and over 40, 000 employees across a diverse range of workplaces since 2004 (N.

Highet, Shann, & Young, 2010). The training is delivered by mental health professionals with training expertise, and aims to educate employees about recognising and responding to depression in the workplace. The program includes structured learning, information, on mental health promotion, and direction to education materials and support services. Different workshops have been tailored for delivery to general staff and managers. The program has also be adapted to a number of different settings, including rural communities (Pierce & Shann, 2012) and bushfire-affected communities (Wade et al., 2012). The program has been evaluated, with results published on the beyondblue website (www.beyondblue.org.au) (beyondblue, 2007). Pre and post questionnaires were administered to a sample of 1, 213 employees from government and non-government organisations, with measures of knowledge and understanding of depression, negative attitudes towards people with depression, and confidence and willingness to assist someone who may have depression. Results from the evaluation provided evidence for six positive participant outcomes (beyondblue, 2007). These were (i) an increased awareness and understanding about depression in the workplace, (ii) a greater understanding of the impact of depression on the lives of people affected, including work performance, (iii) improved attitudes and decreased stigma towards a colleague with depression, (iv) increased willingness and confidence to assist and/or manage a person who may be experiencing depression, (v) a greater understanding of managers' responsibilities to staff and the organisation, as they relate to these issues and (vi) a high degree of participant satisfaction with the content and relevance of the program.

While these results show promise for the program, the lack of follow-up evaluation represents a limitation of this evaluation. It is unknown if the positive

outcomes observed immediately after attending the workshop were sustained over time, nor is it known if participation in the beyondblue program resulted in a change of behaviour (for example, assisting a colleague with depression to seek professional help). Mann (1996) cautions against using the amount of knowledge retained immediately after participation in a training program as a measure of training effectiveness. In addition, similarly to the MHFA program, the beyondblue program does not specifically target organisational leaders and, therefore, benefits rest solely with individuals, rather than becoming embedded in the workplace culture. This can lead to the organisation losing the new knowledge when the employee moves on to a new job.

Taken together, the mental health training programs described in this section show promising results. However, there are critics of the evaluation approaches utilised in such programs. Szeto and Dobson (2010) conducted a review of workplace-based stigma reduction programs. They argue that despite the strong rationale for the delivery of anti-stigma programs in the workplace, very few exist. In addition, for those that do exist very few have been evaluated and the quality of the evaluations is questionable. They raise two important concerns with these evaluations that will be addressed in the design of the evaluation of the current online program. First, measures of the behavioural outcomes of programs have not been included. Most program evaluations, including those outlined above, focus only on measures of knowledge and attitude changes. The authors argue that focusing on only two of these is inadequate, as stigma comprises three components (cognitive, affective and behavioural). Second, Szeto and Dobson (2010) argue that both individual and organisational factors as moderating variables to stigma reduction need to be included

in evaluation studies, as behaviour is a function of both the person and the environment. Both these criticisms will be addressed in the evaluation study with behaviour change (that is, the application of the learning from the online program back into the workplace) incorporated into the current evaluation. Further, the individual and organisational, or contextual, factors that impact on stigma reduction will be measured in the evaluation study. Both of these elements are reflected in the hypotheses and research questions for the evaluation study outlined in Chapter 7.

A further criticism of the workplace mental health training programs outlined above is that they do not target organisational leaders, something that is recognised as critical for the messages from manager and staff workshops to be embedded in the organisational culture (Barry & Jenkins, 2007; Goldberg & Steury, 2001). Martin, Sanderson and Cocker (2009) conducted a meta-analysis to investigate the impact of different types of health promotion interventions in the workplace on depression and anxiety symptoms. While evidence of effectiveness was found, none of the 22 studies included in the analysis directly targeted organisational leadership. Workplace-based interventions, such as training programs, need to address the workplace context (for example, leadership support) that either reinforce positive messages or inadvertently sabotage the implementation of strategies designed to support the mental health of employees (Lerner & Henke, 2008; Noblet & LaMontagne, 2006; Szeto & Dobson, 2010). Cleary et al. (2008, p. 511) called for the development of such programs, stating “there is a need for a mental health program which is targeted at senior managers and which includes not only the traditional mental health literacy information, but also an economic mental health literacy component.”

Organisational Leadership, Culture and Social Learning Theory

The above review of literature relating to workplace-based mental health interventions has demonstrated that much of the current activity in workplaces does not specifically target organisational leaders. Yet organisational leaders play a critical role in creating a culture at work that encourages and supports employees to seek treatment for common mental health problems, thus minimising the costs of depression on the organisation, the individual, and their family (Goldberg & Steury, 2001; Whiteford & Groves, 2009).

Organisational culture can be described as the social glue that helps to hold the organisation together by providing appropriate standards for what employees should say and do (Hoogervorst et al., 2004). Schein (2010) viewed organisational culture as a multilayered construct that includes artefacts, values, social ideals and basic assumptions. Artefacts such as behaviours, structures, processes and technology form a first layer. At a more latent level, organisational culture is reflected in the values and social ideals shared by members of the organisation. At an even deeper level are the underlying assumptions that determine values. These assumptions are quickly internalised by new members of an organisation. Culture serves as a sense-making mechanism that guides and shapes the attitudes and behaviour of employees (Schein, 2010). It has an important influence on employee perceptions and attitudes which in turn influences employee behaviour (Parker et al., 2003). The actions of organisational leaders have a major impact on the organisation's culture (Thorpe & Chenier, 2011). Through what they say and how they behave, leaders establish norms that filter down through the organisation. Norms are acceptable standards of behaviour within a group that are shared by the group's members. For example,

leaders can shape expectations about whether issues are discussed openly and how much support managers should give their employees (Thorpe & Chenier, 2011).

Much research has been conducted in an effort to define and characterise different types of organisation cultures that exist within different workplaces. Cameron and Quinn (1999) proposed one of the most popular of these models, called the Competing Values Framework (CVF). This framework describes four types of organisational culture according to their location on two continuums. The horizontal axis contrasts an internal focus with an external focus, and the vertical axis opposes stability, order and control to flexibility and change. Each quadrant of the CVF contains a set of values that characterise a culture type. The ‘group culture’ favours employee participation, people orientation, respect for the individual’s rights, mutual trust, tolerance, team spirit and working in collaboration with others. The ‘developmental culture’ is more externally focussed and relies on environmental scanning, action orientation, quickly taking advantage of opportunities, risk-taking, experimenting and innovating. The ‘hierarchical culture’ is characterised by stability and continuity through information management, paying attention to detail, being precise, being rule oriented, a division of labour, efficiency and formal procedures. The ‘rational culture’ values decision rules, competition, performance indictors and high expectations for performance, results orientation, individual and collective accountabilities and reinforcement contingencies. Dextras-Gauthier, Marchand & Haines (2012) have explored the link between CVF and employee mental health and wellbeing. They proposed that the association between organisational culture and mental health is mediated by the work organisation conditions that qualify the task environment (for example, control, work demands, social support and rewards). This

group of researchers (Marchand, Haines, & Dextras-Gauthier, 2013) sought to determine which organisational culture types are most strongly related to employee mental health and wellbeing. They did this by surveying a sample of 1,164 employees in 30 workplaces, across multiple sectors. They found that the ‘group’ organisation culture type is consistently and moderately positively correlated with mental health and wellbeing outcomes for employees. This organisational culture type puts a strong emphasis on human resources and promotes a supportive work environment, where managers and leaders demonstrate a concern for the welfare of employees. Thus highlighting the important role that leaders play in shaping the organisational culture.

There is a vast body of literature on theories and models of organisational leadership and, while it is relevant to note this literature, a review of it is beyond the scope of this review and the current research. Instead one theory drawn from social psychology, Social Learning Theory, will be used to examine organisational leadership. Social Learning Theory attempts to explain the critical role of leadership support for new initiatives, such as workplace mental health programs. Albert Bandura (1977), one of the most influential Social Learning theorists, emphasised that learning does not just occur through direct experience. It can occur through watching the behaviour of another person, called *observational learning*. The term ‘modelling’ is often used interchangeably with ‘observational learning’. The person whose behaviour is observed is called the ‘role model.’ The learning takes place spontaneously, with no conscious effort on the part of the learner or any particular intention on the part of the teacher. Observational learning can take place without any specific reinforcement; exposure itself is enough for the behaviour to be learned (Gross, 1992).

The theory suggests that individuals in the workplace will look to role models (such as leaders and other employees) to guide their behaviour. Employees will then imitate the behaviour they observe from leaders to ensure that their own behaviour is consistent with what is acceptable within the organisation and congruent with relevant behavioural norms (Grojean, Resick, Dickson, & Smith, 2004; Mayer et al., 2009; Thorpe & Chenier, 2011). Mayer, Kuenzi, Greenbaum, Bardes and Salvador (2009) investigated the 'trickle down' effect of leadership, that is, the attitudes and behaviours of leaders that transfer (through the social learning processes of modelling and observational learning) to employees. They surveyed 904 employees and 195 supervisors from 160 organisations in the USA (obtaining a 49 percent response rate). Surveys were focused on examining ethical leadership and culture. Findings demonstrated that the behaviour of leaders does have a 'flow on' effect through the organisation, with supervisors mediating the impact between leaders and employees. The authors conclude that their findings are consistent with the principles of Social Learning Theory, suggesting that followers' behaviour is influenced through a modelling process in which employees mimic leaders' behaviour.

While this study provides support for the application of Social Learning Theory to the organisational context and for the importance of targeting any workplace interventions at leaders, there are some important limitations. First, the cross-sectional study design means that conclusions regarding causality cannot be drawn. Second, it relied on self-report data and, therefore, may be influenced by a range of biases, such as memory or social desirability bias. Overall, however, this study, along with other research reviewed below, provides support for the application of Bandura's (1977) Social Learning Theory in the workplace, and for the need to target organisational

leaders when trying to influence organisational culture, as is the case with the evaluation study.

Several researchers have noted the importance of leadership support for workplace-based initiatives to ensure compliance and support by employees at all levels in the organisation (Dellve et al., 2007; Michael, Evans, Jansen, & Haight, 2005; Shain & Kramer, 2006; Thorpe & Chenier, 2011). To this end, Schein (2010) proposed six 'tools' that leaders use to teach employees how to perceive, think, feel and behave in an organisation. These are visible artefacts of the culture that, Schein (2010) argues, directly create the shared experience of the organisational 'climate'. These six tools are: (i) what leaders pay attention to, measure and control on a regular basis, (ii) leaders' reaction to critical incidents and organisational crises, (iii) leaders' allocation of resources, (iv) leaders' deliberate role modelling, teaching and coaching, leaders' allocation of rewards and (v) leaders' recruitment, selection, promotion decisions and (vi) their decision to terminate employees. Social Learning Theory's principle of role modelling, both conscious and unconscious, underpins each of these mechanisms in that each of these 'tools' communicates to employees, by leaders, about 'how we do things around here' (Schein, 2010). With regards to mental health in the workplace, it is arguable that leaders would use the above tools and mechanisms to embed their own assumptions and beliefs about the mental health of employees in the organisational culture.

Research conducted in New Zealand in 2004 further highlighted the need to target mental health promotion and education messages directly to leaders (Phoenix Research, 2006). The research utilised a random sample of 1, 008 people aged between 15 and 44 years, including 101 employers and 245 managers. Interviews

were completed using computer assisted telephone interviewing (CATI). Leaders (employers) appeared to have less positive attitudes than managers. Leaders, for example, were more likely than managers to agree with the statement that '*as soon as a person shows the signs of being mentally unwell they should be hospitalised*'. This difference in attitudes may be related to different levels of direct contact with employees with a mental illness and may reflect a greater focus among leaders on business and organisational needs (as opposed to the needs of individual employees). As with any community members, some leaders have negative preconceptions concerning mental illness. Such preconceptions can be particularly damaging as leaders have the power to exclude people with common mental health problems from the workforce (Duncan & Peterson, 2007).

The importance of supportive leaders and workplace culture was highlighted by Secker and Membrey (2003), whose interviews with people with a mental health problem aimed to explore their employment and workplace experiences. Interviewees identified several workplace cultural factors that supported their recovery and staying well, including: a workplace culture where difference was accepted, a culture of concern about employees' welfare, and valuing of employees for their strengths.

These findings draw attention to the important role that leaders have in 'setting the tone at the top'. It has been argued (Grojean et al., 2004), that in order for a consistent and strong organisational culture, leaders need to convey consistent messages to employees. Grojean et al. (2004) asserts that the provision of training specifically tailored for organisational leaders is an ideal way to do this. It is then the role of top leaders to provide the role modelling and guidance to lower-level managers regarding organisational values and expectations (Thorpe & Chenier, 2011).

The current research has these arguments at its core: equipping leadership teams with the attitudes, knowledge and skills to appropriately support employees with depression will ensure that these will 'trickle down' through the whole organisation, ensuring that employees with depression are supported to seek assistance as early as possible and that leaders are more likely to support mental health policy and strategy development (Reavley, Ross, Martin, LaMontagne, & Jorm, In press).

The Use of Online Technologies to Address the Impact of Depression

In the past decade there has been a rise in the use of online technologies to deliver health messages and education programs within the workplace (Brinkerhoff & Apking, 2001; H. Christensen, 2010; F. Griffiths, Lindenmeyer, Powell, Lowe, & Thorogood, 2006; Lauder, Chester, & Berk, 2007; Oh, Jorm, & Wright, 2009). This medium is increasingly seen as a convenient, efficient, cost-effective and acceptable way of delivering information to the general population and to employees (Fox et al., 2000). Several studies have been conducted to support the effectiveness of online psychological interventions and treatment programs to significantly improve mental health outcomes (Andersson et al., 2005; H. Christensen, Griffiths, & Jorm, 2004; H Christensen & Petrie, 2013; K. Griffiths & Christensen, 2007; Grime, 2004; Perini, Titov, & Andrews, 2009). In addition, the community view online self-help programs as an acceptable way of accessing help (Cavanagh et al., 2009; H. Christensen, 2010; Oh et al., 2009; Titov, 2007).

There is a developing literature to suggest that online interventions offer unique opportunities for disseminating behavioural health education and skills. These programs have been shown to be effective in enhancing the learning and retention of

health-related materials (Cook, Billings, Hersch, Back, & Hendrickson, 2007; Stout, Villegas, & Kim, 2001).

There are several important reasons for this increase in the popularity of online programs to deliver health-related, including mental health messages and information. Griffiths, Lindenmeyer, Powell, Lowe and Thorogood (2006) conducted a systematic review of 37 peer-reviewed evaluations of health interventions to identify the reasons why health interventions are increasingly being delivered online. The five key reasons for internet delivery were: (i) reduced cost and increased convenience for users (through increased accessibility for the user), (ii) accessibility for isolated groups (whether the isolation is geographical or due to the nature of the health problem, for example social phobia), (iii) timeliness of access to the internet (the information is available when people need it), (iv) control of the delivery pace and (v) tailoring the information to their own needs and the ability to reach stigmatised groups of people, such as those with a mental illness. In addition, the anonymity of the internet is a commonly cited reason for the delivery of mental health information using this medium as it can lessen the effects of stigma (Billings et al., 2008).

Online programs have been shown to be an effective way of challenging negative attitudes and stigma related to depression (K. Griffiths et al., 2004; Jorm et al., 2010). For example, Finkelstein and Lapshin (2006) investigated the efficacy and feasibility of a online, interactive, self-paced depression stigma reduction program for healthcare professionals who may encounter people with depression. Forty-two participants who were staff or graduate students from the University of Maryland (USA) participated in the study. The design of the program drew on the Unitary Theory of Stigma (as outlined in Chapter 3), addressing the three components of

stigma: cognitive (lack of knowledge or untrue beliefs about depression), emotional (feelings toward people with this condition and its treatment), and behavioural (behaviour regarding people with depression and treatment for depression). The primary outcome measures used were Bogardus Social Distance Scale (Link & Cullen, 1983) with a vignette on major depression disorder and the Depression Stigma Scale (developed by the authors for the purposes of the study). These were administered immediately pre and post the intervention. In addition, participants' opinions about the usability and user-friendliness of the program were accessed. Results indicted that most people in the sample had moderate levels of depression stigma. Lower levels of knowledge about depression were associated with higher levels of depression stigma. Completion of the program significantly decreased levels of stigma. Overall, 69 percent of participants experienced decreased levels of depression stigma. This effect was independent of gender, employment status, age and levels of education. People with a high level of depression stigma gained more from the program than people with a low level. After completing the educational program, participants' knowledge about depression significantly improved and resistance to treatment significantly decreased. The program was rated very highly by participants and most would recommend its use to others. Interestingly, when asked to compare the online program with other kinds of delivery of health messages, 54.8 percent reported a preference for the online program.

Further evidence of the effectiveness of a online delivery approach to educate about mental health problems was found by Deitz, Cook, Billings and Hendrickson (2008). The purpose of their study was to test an online program that provided working parents with the knowledge and skills necessary for prevention and early

intervention of mental health problems in young people. Results indicated that in comparison to a non-intervention control group, parents who participated in the program had greater knowledge of mental health issues and a greater self-efficacy in handling these issues with their children after completing the program, compared to controls.

Online mental health education programs in the workplace. There is also evidence that online mental health education programs can be effective in the workplace context. Billings et al. (2008) designed and evaluated a online workplace mental health program. The program was a multimedia (audio-narrated, video and graphics) education program designed to help adults manage their stress and mood. The authors found that, in comparison to the control group, participants who used the online program displayed improved knowledge about the early warning signs, prevention and treatment of stress, anxiety and depression. They also had a more positive attitude towards seeking help and a marginal increase in confidence to manage their own moods. Reduced stress levels and marginal improvements in job performance were also reported. Overall, the researchers concluded that this program reduced worker stress and addressed stigmatised mental health problems (depression and anxiety) by embedding it in a more positive stress management framework.

While providing useful information regarding online interventions, the above studies share a major limitation: the lack of examination of meaningful behaviour change as a result of the online program. For example, in the Billings et al. (2008) study, did increased confidence to manage their moods actually result in better mood management? A further limitation of this group of studies is the lack of follow-up measures of stigma and knowledge. The stability of findings and the impact of

findings over time is unknown. These consistent limitations will be addressed in the evaluation study.

Overall, these studies support the assertion that online delivery is an effective way to change attitudes and stigma towards people with depression and improve knowledge about the condition. However, further research into the longer-term benefits, including behavioural change, is required.

Rise in the use of e-learning in workplaces. The growth in the use of the online technologies to deliver mental health messages and challenge related stigma has coincided with a growth in the use of e-learning in the workplace context. Horton (2006, p. 1) defines e-learning as "the use of information and computer technologies to create learning experiences". A survey of 140 organisations across the construction, mining, health, primary, manufacturing and electronics, transport and logistics industries found that 40 percent of respondents planned to increase the proportion of their training budgets spent on e-learning in the next 12 months (Nunes, McPherson, Annansigh, Bashir, & Patterson, 2009). E-learning is increasingly being seen as a way to improve employees' performance by accommodating different learning styles and offering a variety of delivery methods to create the best learning experience as possible.

E-learning delivery methods offer organisations practical advantages over traditional approaches to employee training and development. Brinkerhoff and Apking (2001) propose six key benefits of e-learning specific to the workplace training context: (i) e-learning programs can be flexibly accessed at any time or from diverse geographic locations, asynchronously, (ii) costs to the organisation are reduced, largely because the need for 'classroom' training is reduced, (iii) Learning

and Development staff are freed up to do more strategic work, (iv) overheads are lower and economies of scale can be achieved (through multiple delivery of the same online program), (v) learners can move through the programs at their own pace and (vi) organisations can track and log the learning of their employees easily (for example, how often, how long, when, where and by whom the training was accessed). This data, in turn, can more easily be linked to performance needs and business objectives. Not surprisingly, many of these reflect the benefits of online delivery of mental health information outlined earlier.

Brinkerhoff and Apking (2001) also identified some potential risks of e-learning. The most pertinent is the risk of poor design of the program rather than the method of e-learning itself. In addition, some organisations (particularly small and medium sized companies) may not have the technology required to access e-learning, although this is changing rapidly given the prevalence of personal computers and smart phones. Some employees may also be reluctant to access learning programs online, preferring traditional face-to-face delivery. Despite these potential issues, the authors conclude that e-learning can significantly improve the impact of training, at the same time as reducing costs to the organisation.

Conclusion

This chapter presented a review of the literature regarding current practices to address mental health in the workplace. A critical analysis of two of the most common approaches, EAPs and mental health training programs, was provided. Employers and human resource managers have generally recognised the need to address mental health issues within the workplace, both in terms of early identification and stigma reduction. However, these still tend to be focused on

individual employees (as is the case for EAPs) and targeted at general staff and line managers, rather than organisational leaders. This approach has been criticised due to the failure of key messages and learning to be embedded in the organisational culture. In addition, the longer-term impact of many of these programs and the potential for sustained behaviour change has not been established. Online technologies and the growing popularity of e-learning in workplaces offer new opportunities to develop innovative online programs to address the shortcomings of the current field of research. However, new methods of evaluation are also required to establish sustainability of messages over time in the target organisations.

Currently, no literature details any workplace mental health intervention specifically targeting organisational leaders. Leaders play a key role in shaping the workplace culture, by modelling appropriate attitudes and behaviour, to ensure that employees with depression are encouraged to seek help as early as possible. Therefore, it is critical that organisational leaders are exposed to programs that improve their knowledge and understanding of depression, and reduce negative attitudes and stigma.

The growing popularity of accessing mental health information online and the utilisation of e-learning in workplaces presents an alternative and potentially useful delivery option for a workplace mental health program, such as the one examined in the evaluation study. The introduction of such programs also indicates the requirement of new evaluation methodology.

Chapter 5: Measuring the Effectiveness of Workplace Training Programs - Considerations for the Design of the Evaluation Study

Introduction

As detailed in the previous chapter, one of the most common workplace mental health interventions is the delivery of training to improve attitudes, decrease stigma and contribute to a mentally healthy workplace. However, the majority of these programs are not adequately evaluated, which makes it difficult to assess their effectiveness. Training can be a costly investment for organisations and decision-makers are often unable to assess the extent to which it produces the desired results.

This chapter will provide a critical review of approaches to, and models for, the measurement of workplace training effectiveness. It will also explore the learner characteristics, training design and work environmental factors that contribute to knowledge gained actually being applied on the job (that is, 'training transfer'). This examination is critical as the effectiveness of training depends ultimately on whether the learned outcomes are used in the workplace to secure a desired improvement.

While 74 percent of organisational leaders believe it is important to measure the impact of training programs on job performance, only 14 percent actually do so (Bersin, 2008). Although evaluating training can be time consuming and resource intensive, it is now generally agreed that it is necessary. The most popular approach to training evaluation, Kirkpatrick's 'Four Levels' model, is outlined below, along with an overview of the growing criticisms of this approach. An alternative model (Brinkerhoff & Apking, 2001) has been proposed to ensure that learning gained from

workplace training programs is transferred back into the workplace. The chapter ends with a discussion of the approach to training evaluation and mixed methods design that will be employed in the evaluation study.

Kirkpatrick's 'Four Levels' Model of Training Evaluation

In 1959, the 'giant' of training evaluation (Bersin, 2008), Donald Kirkpatrick, first published his hierarchical model of training evaluation which identified four key levels on which training can be evaluated. Over the last fifty years, Kirkpatrick's simple model has became extremely popular in business and academia, largely because it addressed a need to understand training evaluation simply, yet systematically (Alliger, Tannenbaum, Bennett, Traver, & Shotland, 1997). Kirkpatrick's four levels are outlined below and in Figure 3 (D.L. Kirkpatrick & Kirkpatrick, 2006).

The first of Kirkpatrick's levels is 'reaction'. Evaluation on this level measures how participants in the training program react to it. This is often referred to as the measure of 'customer satisfaction'. Kirkpatrick asserted that if participants do not react favourably to the training, they probably would not be motivated to learn. However, positive reaction may not ensure learning. Studies of training effectiveness are often based on the reaction level, largely because it is relatively easy to measure (Alliger et al., 1997; W. Arthur, Bennett, Edens, & Bell, 2003; Cheng & Hampson, 2008). For example, '*Did the trainees like and enjoy the training*?'

The second level, 'learning', refers to the extent to which training participants change attitudes, improve knowledge, and/or increase skills as a result of attending the program, that is, whether they learnt anything. For example, '*Did the participants learn what was intended they learn*?'

'Behaviour' is the third level, and refers to the extent to which participants applied the learning and changed their behaviour, assessed immediately or several months after the training, depending on the situation. This is the measure of whether the learning was transferred back into the workplace (that is, training transfer). Kirkpatrick and Kirkpatrick (2006) highlight the importance of having the 'right climate' in the workplace to support behaviour change. They state that there is little or no chance of the learning from training transferring back to the workplace if the participant's manager is discouraging or preventing that from happening. The authors assert that it is important to measure reaction and learning before behaviour. If this has been done, and if no behaviour change has occurred, then the lack of change can be attributed to an ineffective training program, or hostile job climate and lack of rewards. For example, '*Did the participants put their learning into practice when back on the job*?'

The final of Kirkpatrick's levels is 'results', which is the effect on the business or environment resulting from the improved performance of the participant. Kirkpatrick and Kirkpatrick (2006) describe this as 'the acid test'. The authors state that it is difficult, if not impossible, to measure final results for programs on such 'soft' topics as leadership, communication, motivation, time management, empowerment, decision making or managing change. Example measures of the results level include increased productivity, improved quality, decreased costs, reduced turnover and higher profits.

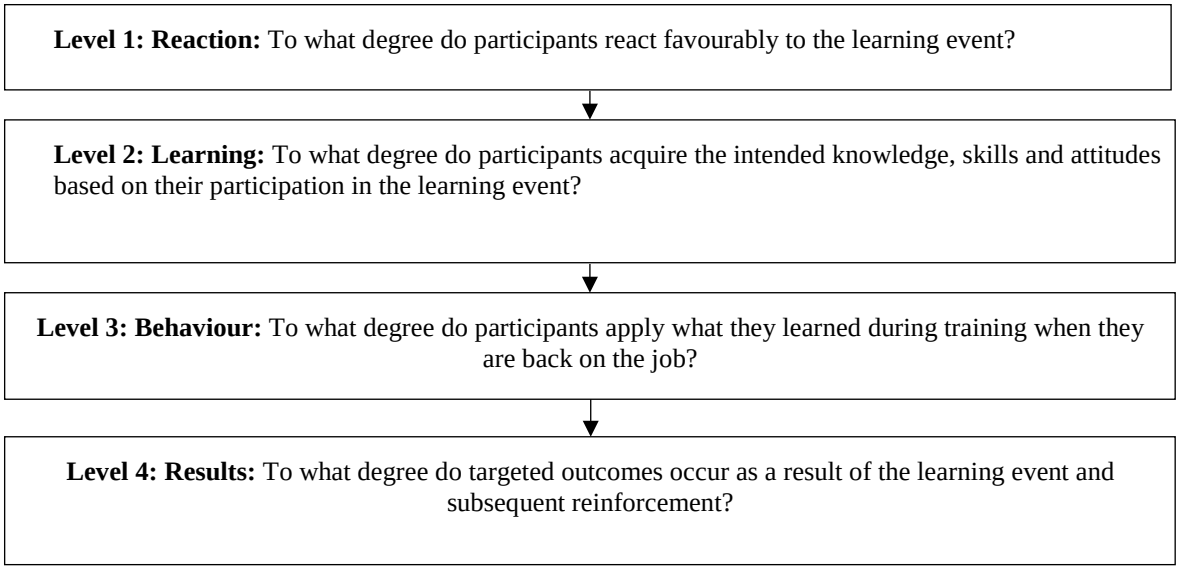

Figure 3. A summary of Kirkpatrick's Four Levels of Training Evaluation (cited in Kirkpatrick & Kirkpatrick, 2009).

There are three key assumptions in Kirkpatrick's model: (i) the four levels are (i) arranged in ascending order, (ii) causally linked, and (iii) positively related. Each level has an impact on the next. For example, the satisfaction of the trainees influences their propensity to study, which, if it becomes real learning, can modify behaviour to the point of improving individual and organisational results, in terms of both quality and quantity (Giangreco, Sebastiano, & Peccei, 2009).

The most common criticism of Kirkpatrick's model relates to Level 1, (reaction). The measurement of trainee satisfaction, which generally takes place at the end of a training course, is by far the most popular and often the only form of evaluation that is undertaken by organisations (W. Arthur et al., 2003). An American Society for Training & Development benchmarking survey looked at the adoption among the Society's members of Kirkpatrick's model (Rossett, 2007). The results showed that the Kirkpatrick model is the most commonly practiced model of training evaluation, demonstrating that 94 percent of courses are examined for Level 1 and 34

percent for Level 2. However, only 13 percent were measured for Level 3 and just 3 percent for Level 4. The most frequently used form of training evaluation (level 1) is the most criticised – often dismissed as “happy sheets” or “just questions about reactions” (Rossett, 2007).

A similar study was conducted in the medical education field. Hill, Yu, Barrow and Hattie (2009) conducted a systematic review of effectiveness studies of training programs designed to improve the teaching skills of medical residents. Each published study was evaluated by two reviewers and graded according to a modified Kirkpatrick’s model of educational outcomes. They found that: 48 percent of the studies reviewed measured participants’ views of the learning experience (reaction level), 52 percent measured changes in attitudes and 45 percent measured changes in knowledge (learning level), 28 percent measured self-reported changes in behaviour and 59 percent measured observed changes in behaviour (behaviour level) and only 7 percent measured change in organisational practice (results level). These findings are broadly consistent with other studies showing that levels 1 and 2 are the most utilised of Kirkpatrick’s levels in evaluation studies and level 4 is very rarely measured.

Studies such as these have fuelled much criticism of the practical usefulness of Kirkpatrick’s Level 3 and 4 evaluation (Alliger et al., 1997; Giangreco et al., 2009; Rossett, 2007; Smith, 2008). In response to this criticism, in 2006, with the publication of the third edition of Kirkpatrick’s book *Evaluating Training Programs* there was an increased emphasis on Level 4 Results, making the case that the best way to use the model is to start with Level 4 Results and work backward so that training efforts are focused on desired business results, providing support for the necessary behaviours to achieve them. The concept of a ‘chain of evidence’ was also

developed at this time; the chain of evidence (J. D. Kirkpatrick & Kirkpatrick, 2009) demonstrates how the model can be used from the inception of an initiative all the way to measuring the final impact, as opposed to measuring the effectiveness of what has already been done. The concept is designed to demonstrate that intended results must be considered before training begins, and key metrics should be identified and measurement methods planned from the start.

Despite adaptations to Kirkpatrick's model, criticisms remain (Giangreco, Carugati, & Sebastiano, 2010; Powell & Yalcin, 2010). Researchers have suggested that the model is lacking clarity about the results level criteria (Alliger et al., 1997). It could be argued that the model does not provide sufficient information about how to evaluate the impact of training on overall business performance, with the connection between business goals and training content being taken for granted and not measured. In addition, the role of individual learner characteristics, such as motivation to learn from the training (called 'pre-training motivation'), is completely absent from the model, despite research confirming its importance in the training transfer process (Cheng & Hampson, 2008). Further, a review of the training evaluation literature published in the last 10-15 years highlights an absence of studies measuring all four of Kirkpatrick's levels (Bashook et al., 2010; Crethar et al., 2009; Oostrom & van Mierlo, 2008; Woo et al., 2009). Most have not even attempted to implement Level 4 evaluation, limiting measurement to Levels 1, 2 and 3.

In addition to the difficulty in implementation of all four of Kirkpatrick's levels, it has been argued that the model is easy to understand but incomplete, as it does not explain how training drives learning or how training drives business impact (Bersin, 2008). There are no steps or application concepts that make the levels useful in

practical terms. Therefore, the simplicity of Kirkpatrick's model is appealing but also, by the same token, potentially a liability.

One of the most vocal critics of Kirkpatrick's approach is Robert Brinkerhoff. He is critical of the term 'levels' as it implies an ordinal relationship, the 'higher' levels have taken on the 'aura of a goal unto themselves' (Brinkerhoff, 1988). Brinkerhoff and Apking (2001) assert that Kirkpatrick's model is not aligned to the business results required through the implementation of workplace training initiatives. According to Kirkpatrick's model, business results are always measured last and often too much time has passed to do anything meaningful with the results. This can limit the ability to meaningfully comment on the success, or otherwise, of the training transfer process. Brinkerhoff states that this poses three significant risks: (i) undermining of partnerships with line management by misrepresenting the role and process of training in performance improvement, (ii) ignorance of performance system factors that impinge on training impact and (iii) failure to provide accurate and relevant feedback that managers (the customers of training) need to guide performance improvement (that is, evaluation feedback goes to the wrong people).

New approaches to workplace training evaluation are undoubtedly required (Giangreco et al., 2010). These approaches should focus on the transfer of training and how it contributes to organisational performance, rather than on just assessing the training itself (Powell & Yalcin, 2010). A thorough model of training effectiveness must include much more than is addressed by a taxonomy of training criteria, such as Kirkpatrick's.

Brinkerhoff & Apking's High Impact Learning Model

In response to the growing criticisms of Kirkpatrick's model outline above, Brinkerhoff and Apking (2001) proposed an alternative model, High Impact Learning (HIL). As the name suggests, the key feature of this model that distinguishes it from Kirkpatrick's is the integration of performance improvement strategies into the training process, rather than just focussing on evaluating the learners' opinions of the content (see Figure 4 for summary).

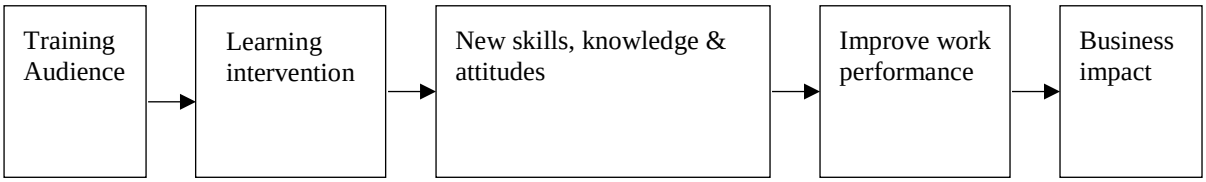

Figure 4. Brinkerhoff & Apking's (2001) 'High Impact Learning' model

According to Brinkerhoff (1988) good evaluation should be able to prove that the training is effective in several key ways: is aimed at important and worthwhile organisational benefits, operates smoothly and effectively and is enjoyed by participants, achieves important skills, knowledge and attitude objectives, uses the best available and most cost-effective designs, is used effectively on the job and provides valuable and cost-effective organisational benefits.

Brinkerhoff and Apking (2001) define the impact of training more rigorously than Kirkpatrick, such as the application of new knowledge and skills to enhance performance in a way that makes a worthwhile difference to the business – this is not explicitly measured in Kirkpatrick's model. There are three central elements to Brinkerhoff and Apking's model: (i) creating focus and intentionality in the learner,

(ii) providing learning activities to enhance capabilities and (iii) supporting performance improvements back in the workplace.

The importance of behavioural intentionality has been supported by Cheng and Hampson (2008) who proposed the application of the theory of planned behaviour (Ajzen, 1991) to further understand the training transfer process. The theory of planned behaviour explains human action through understanding the human psychological process, in particular, by uncovering the links between intentions and behaviour. The theory posits that the role of 'intention' functions as a mediator of three influences on transfer behaviour (attitude toward the transfer behaviour, subjective norm and perceived behavioural control). For example, the training behaviour will emerge if the learner's attitude towards the training behaviour is positive (Cheng & Hampson, 2008). They argue that behavioural intention is the most influential variable that can predict human behaviour, and perhaps, training transfer. This confirms the importance of an approach to training evaluation like that proposed by Brinkerhoff and Apking (2001), that actively creates intentionality in the learner. This concept is also closely linked to pre-training motivation, which will be discussed in more detail later in this chapter.

Foxon (1994) also argues that linking training outcomes with workplace performance can be a powerful intervention to facilitate training transfer. It provides learners with a "cognitive link between the training room and the work environment, it capitalises on and enhances the end-of-course intention, and it takes into account the possible negative effects of the organisational climate" (Foxon, 1994, p.11). She proposes a structure for 'action planning' that includes a clear commitment to action when the learner returns to the workplace. This approach is further supported by

Johnson, Garrison, Hernez-Broome, Fleenor and Steed (2012), in their assessment of the training transfer for 294 leaders who participated in a 5-day leadership development program. They found that leaders who set goals for change after the program were perceived (by others in their workplace) as having improved more than leaders who did not.

Brinkerhoff and Apking (2001) have argued that e-learning can enhance the HIL approach. It allows faster learning times, which can immediately improve business performance, since it reduces time and money spent in a non-revenue-producing activity such as training. In other cases, e-learning supports more effective translation of learning into performance. E-learning methods also put access to, and engagement in, learning in the hands of line employees, which in turn provides tighter linkage to business needs and issues.

Criticism of Brinkerhoff and Apking's (2001) model centres on the assertion that the creation of behavioural intentionality in the learner requires a significant time commitment from the line manager of the learner to assist with identifying the desired impact from the training. This may be unrealistic in many organisations. However, this time investment ensures that the training is aligned with organisational goals and job role. This role for managers is more than simply providing permission to attend training, as in Kirkpatrick's model. It is argued that the requirement of additional time and advanced management skills is overly ambitious and difficult to implement. (Kolk, 2003).

However, Brinkerhoff and Montesino (1995) have demonstrated that minimal input from managers is required to increase training transfer. They conducted a study with 91 participants in 5 different training courses in a Fortune 200 company in the

USA. For each course, participants were randomly assigned to two groups: those whose managers did and did not provide the specified pre- and post-session intervention. The managerial intervention was a brief (15 minute) pre- and post-training meeting with participants. Supervisors were provided with a list of topics to discuss, such as: how the content is tied to the participants' job (pre), concrete expectations about what they will learn (pre), encouragement to use the content (pre), to what extent the participant had learnt the skills (post), assurance that coaching would be provided if needed (post) and emphasis on the supervisors' expectations that the participants used the skills (post). The trainees in the experimental group reported higher usage of the skills gained than those in the comparison group. Despite the basic nature of the design of this study, it provides evidence that minimal managerial support can have a positive influence on training transfer back into the workplace.

A further criticism of the HIL model is that it is an 'utopian approach' (Kolk, 2003) and is claimed to be too costly. However, Brinkerhoff's argument that it does not necessarily require extra time or money, relative to possible benefits to the business, is supported by Bersin (2008). There is a lack of published data on the time or cost required to implement this approach so the validity of this criticism cannot be assessed.

Despite these criticisms, Brinkerhoff and Apking's (2001) training evaluation model provides a useful and credible framework to explicitly link business and performance improvements with workplace training initiatives. Brinkerhoff's central challenge for organisations is how to leverage learning – consistently, quickly and effectively – into improved performance (O'Connor, 2006). This model will be utilised in the current research, with organisational leaders asked to consider the

impact, or change, they would like to see back in their workplace as a result of participating in the program, through the development of action plans. Action plans are designed to reinforce their intention and motivation to learn and change their behaviour in relation to managing depression in the workplace, thus increasing the likelihood of the transfer of the knowledge and skills learnt from the online program back into their workplace.

Brinkerhoff's Success Case Method of Evaluation

Brinkerhoff (2002) further refined his approach to workplace training evaluation with the development of the Success Case Method (SCM), designed as an efficient measure of training transfer and the impact of a training program. The underlying principle of this method is that often the best indicators of the success (or lack thereof) of a training program come from the participants who have been either exceptionally successful in applying their learning in their work or from participants who have been the least successful.

There are several simple steps involved with this approach (see Figure 5 for a summary of the SCM). The training evaluator identifies the few program participants who were the most, and least, successful. This is usually done with a very brief 3-5 question survey completed by all participants. For example, success may be determined by asking to what extent participants have demonstrated the learning of new skills in their workplace. Results are used to rank participants from highest (most successful) to lowest scores (least successful). The highest and lowest scorers are then identified and interviews, usually by phone for convenience, are conducted. The purpose of the interview is to explore, in more detail, their experience of the training to determine the exact nature and extent of their success or otherwise. Areas examined

during this interview can include what they used, when they used it, what results they accomplished, how valuable the results are and what environmental factors enabled their application and results.

Least successful participants are also interviewed to determine why they were unable to use or benefit from the training, including being asked about barriers to success. This relatively quick process combines an analysis of extreme groups through the development of ‘case studies’. While it does not attempt to build a complete end-to-end measurement model, it can be a very powerful tool for program evaluation. Bersin (2008) asserts that this approach can be a useful alterative to return on investment (ROI) measures. The SCM differs from typical quantitative methods in that it does not seek to learn about the ‘average’ participants (Brinkerhoff, 2003). Rather, it intentionally seeks the very best that a program is producing, to help determine if the value a program is capable of producing is worthwhile, and whether it is likely that it can be leveraged to a greater number of participants.

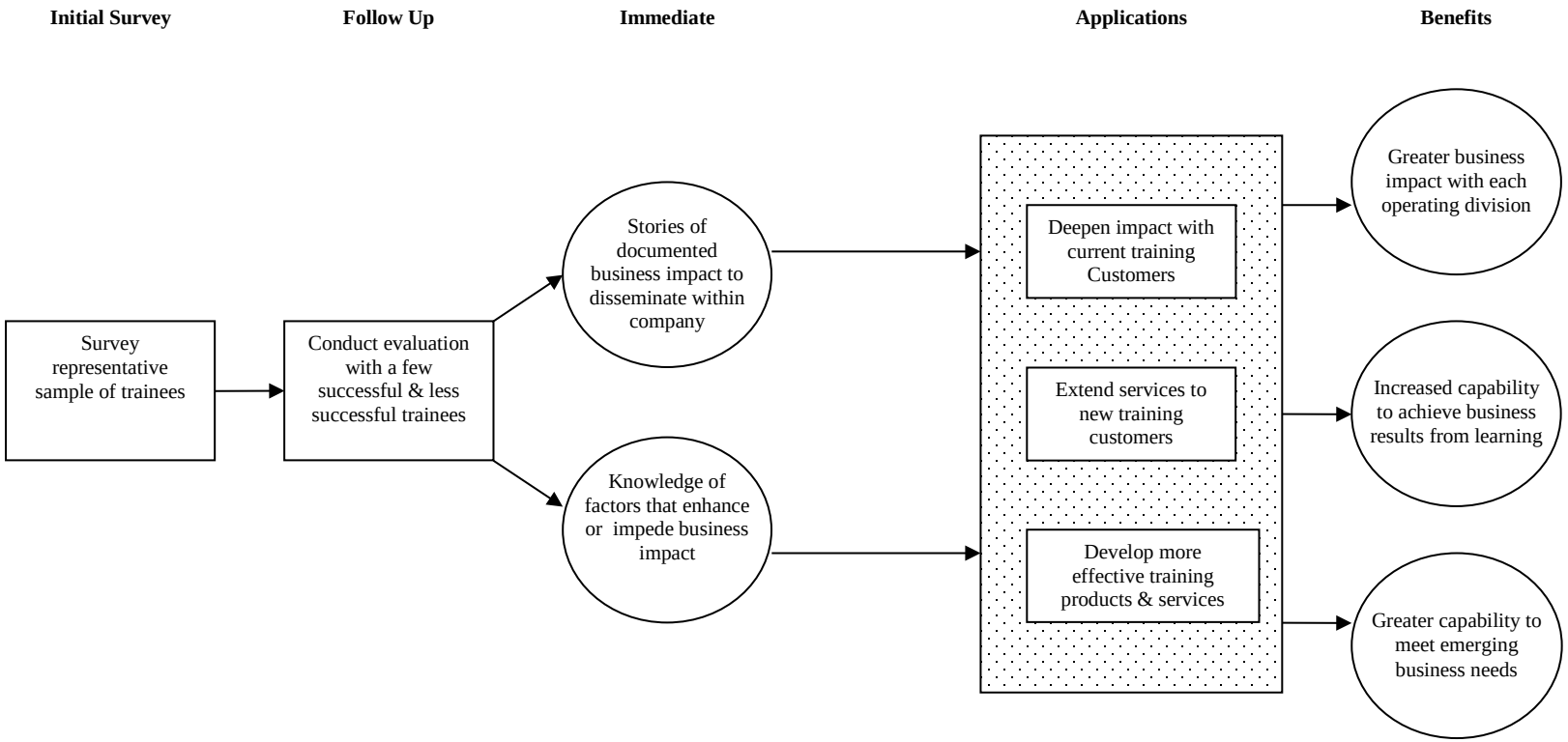

Figure 5. Overview of Brinkerhoff's Success Case Method (adapted from Brinkerhoff & Dressler, 2002)

A key benefit (and unique feature) of this approach is that it can assist with the identification and explanation of the contextual factors that differentiate more successful from less successful adopters of new workplace initiatives. This is important as the work environment can be a powerful predictor of training transfer (Cheng & Hampson, 2008; Hutchins, 2009). For example, providing learners with the opportunity to use the new knowledge and skills on the job and receiving support from managers and peers are two important factors. Research has consistently shown that training transfer is limited when learners do not have opportunity to use new learning in their job role (Brinkerhoff & Montesino, 1995). The transfer climate (defined as cues that prompt learners to use new skills) has been shown to have a powerful impact on the extent to which employees use their new learning in the workplace (Hutchins, 2009). In addition, Blume et al. (2010) found that organisational constraints (such as low level of autonomy or high numbers of situational constraints) were negatively associated with training transfer. As detailed in Chapter 7, a specific research question exploring the impact of contextual factors on participants' likelihood to transfer their learning back into the workplace has been developed as part of the evaluation study.

The method has been applied successfully in the medical education field (Olsen, Shersheva, & Brownstein, 2011). Further, Brinkerhoff (2002) reports employing this method in several large American companies (however, these evaluations have not been published). Coryn, Schroter and Hanssen (2009) modified and applied the SCM as part of a larger evaluation of a non-profit program aimed at reducing chronic homelessness and unemployment. Modifications included defining success in a non-profit setting which did not have a measurable return on investment

as the focus, and adding a longitudinal, time-series element to the design features of traditional SCM to increase methodological rigor. The SCM was used as one component of a larger mixed methods evaluation. The modified SCM was utilised 6 months after the 75 participants completed the program, and again at 12 months and 13 months post the completion of the program. The researchers used the information gained from the semi-structured interviews with the program participants to characterise the factors that contributed to the 'successful' and 'less successful' cases. These included personal characteristics (for example, age, ethnic background and education level) and dosage effects (for example, the more components of the program people participated in the better their housing, social and employment outcomes). Using data from the additional time-series element, they demonstrated benefits of the program that were stable over time and factors that may have contributed to 'skill decay' were identified.

While the usefulness of this approach has been demonstrated, there are several important limitations of the SCM. First, Olsen et al. (2011) argue that the SCM cannot be used to infer causality between contextual factors and business impact, largely because the method is so heavily reliant on participant recall. Coryn et al. (2009) agree that it is not an appropriate method to identify causal inferences that require scientific precision. However, they argue that the SCM is a reliable method for making some types of inferences. For example, the information is useful for decision makers to form reasonable judgements and make sound decisions. They also argue that the method works best when it is part of a larger, more rigorous, program evaluation so that SCM findings, particularly causal inferences, can be examined alongside those gained from other research methods. Accordingly, it seems

appropriate given the methodological approach that will be utilised in the evaluation study.

The second limitation of the SCM is that it is plausible that an explanation for success (or lack of it) could be missed given that all participants are not interviewed in depth. Related to this is Coryn et al.'s (2009) argument that people are not generally skilled at making accurate causal inferences and, therefore, confirmation bias could be a factor impacting on results.

Despite these potential limitations to the SCM, both Olsen et al. (2011) and Coryn et al. (2009) conclude that the SCM is a useful tool to examine the contextual factors which influence training transfer and which impact on business results. Accordingly, this method has been selected as an appropriate tool in the evaluation study and will complement other elements of the mixed method evaluation. By focusing on extreme groups of training participants, contextual factors that differentiate successful from least successful adopters of new training knowledge and skills can be identified. The ultimate aim of this is to ensure that training programs can be appropriately adapted and targeted and contextual factors that enhance training transfer can be supported and promoted.

Research over the last several decades has resulted in a significant understanding of training transfer principles. Most of this research is based on Baldwin and Ford's (1988) influential work on transfer factors. Subsequent studies have confirmed that learner characteristics, training design and work environment can all be seen as predictors of training transfer. These factors were explored in three meta-analytic reviews of the training transfer literature conducted by Blume, Ford, Baldwin and Huang (2010), Hutchins (2009), and Cheng and Hampson (2008). Each

of these three factors will be measured in the evaluation study and are outlined in more detail below.

Factors that Impact on Training Transfer

Two of the most significant learner characteristics that impact on training transfer are pre-training motivation (or 'behavioural intentionality') and perceptions of training relevance. In a study examining the predictors of skill transfer from a one-day corporate information program back into the workplace, pre-training motivation was strongly correlated with training transfer (Chiaburu & Marinova, 2005), indicating that those participants who were more motivated prior to completing the training were more likely to apply the learning from the training in their workplace. Both pre-training motivation and perceptions of training relevance will be measured in the evaluation study. The design of training has also been found to influence the transfer of skills back to the workplace. Important elements of training design include: presentation of multiple examples relevant to the learners work role, reflection of adult learning principles (for example, opportunities for practice and feedback) and that the content is presented in a way that does not overload or confuse learners. These factors will underpin the design of the online program being evaluated in the current study.

The final group of factors that impact on training transfer are environmental or contextual factors in the workplace. For example, providing learners with the opportunity to use the new knowledge and skills in their roles and receiving support from managers and peers are two important factors. Research has consistently shown that training transfer is limited when learners do not have opportunity to use new learning in their job role (Brinkerhoff & Montesino, 1995). These factors, along with

contextual factors from Martin's (2010) study outlined in Chapter 3, such as presence of a mental health policy and organisational disclosure norms, will be measured in the evaluation study through a combination of the pre, post and follow-up surveys and the SCM.

Cheng and Hampson (2008) have argued that the factors outlined above significantly impact on the outcomes of the training (for example, reaction to training, perceived usefulness and development of new knowledge and skills), motivation to transfer learning back into the workplace and actual behavioural changes (transfer behaviour). This model has been adapted by Cheng and Hampson (2008) based on Baldwin and Ford's (1988) transfer of training model and has been summarised in Figure 6.

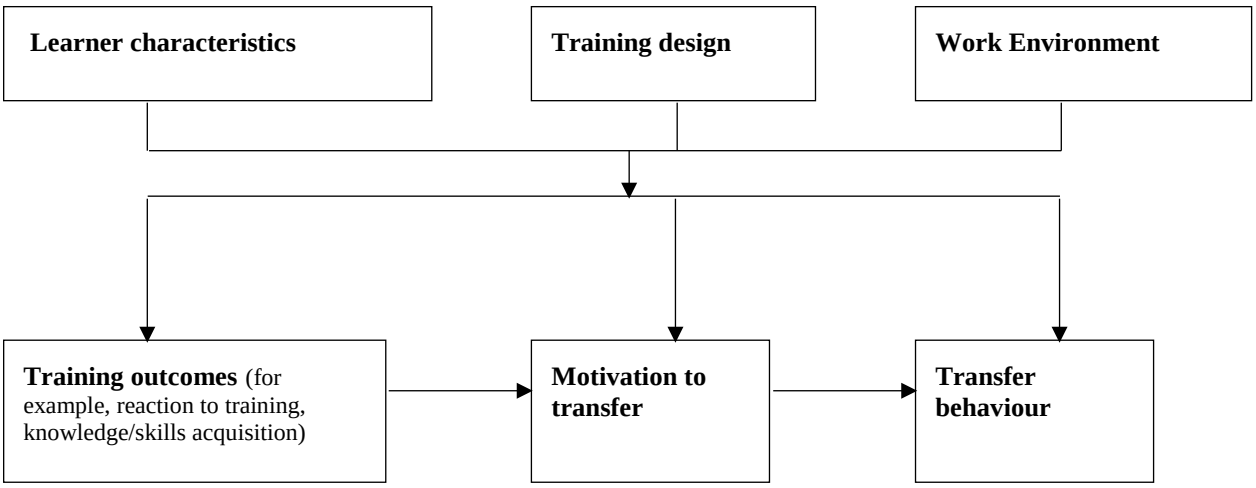

Figure 6. Summary of key variables in the transfer of training process. Adapted from Cheng & Hampson (2008) and Baldwin & Ford (1988)

Perhaps the most comprehensive overview of the factors that impact on training transfer was proposed by Holton, Bates, Bookter & Yamkovenko (2007). This work

built on that of Baldwin & Ford (1988), outlining four ‘domains’ of training transfer: motivational factors, secondary influences (or trainee characteristics), environmental factors and ability elements. There are three motivational factors: the learner’s motivation to apply the learning, the extent to which learner believes that applying the learning will improve their performance and the learner’s belief that applying the learning will lead to valuable recognition of some kind. The two secondary influences are the degree to which the learner is prepared for the training and their belief that they will be able to use the learned material on-the-job to improve performance. The authors outlined several environmental factors that influence training transfer, including manager support and sanctions, feedback received about performance after training, the level of peer support, the extent to which work groups are willing to change and the rewards the employee expects for successfully completing the training. The final domain, ability elements, includes the opportunity the learner has to actually apply the learning back in the workplace, the extent to which the learner has the capacity to apply the learning, to degree to which the content is perceived as relevant and valid and to the design of the training itself.

In their meta-analysis, Blume et al. (2010) examined whether the predictors of training transfer are distinct for different types of skills. They found that the predictors of training transfer tended to have stronger relationships to transfer with ‘soft’ skills (that is, where there are many ‘right’ ways to apply the skills) than with technical/procedural skills. For example, pre-training self-efficacy, motivation and the environmental context become more important when training ‘soft’ skills. The authors suggest that this is because with ‘soft’ skills, training participants have more choice as to what and how to apply the trained principles and concepts back in the workplace.

This finding is particularly important with the current research given it involves the learning of 'soft' skills such as mental health knowledge, effective management strategies of employees with depression and how to create a supportive workplace culture.

Training Transfer in the Online Environment

The examination of predictors of training transfer has been extended into the field of online programs. Venkatesh, Morris, Davis and Davis (2003) reviewed the literature on information technology acceptance and identified eight competing models. They formulated and empirically validated a unified model (called Unified Theory of Acceptance and Use of Technology – UTAUT) that integrates elements across the eight competing models. The three groups of factors outlined above are reflected in this model thus confirming the relevance of these factors to an online training program, such as that being evaluated in the current study. In addition, as outlined in Chapter 7, several research questions in the evaluation study explore the relationship between these three factors and training transfer and behaviour change.

Overall, the above overview of the factors that increase training transfer highlight the importance of ensuring that the content of training programs is perceived to be highly relevant to the participants and tailored to their needs. One method of ensuring this is to conduct an analysis of the training needs, including gaps in knowledge and skills, prior to designing the training program. This approach "sets the stage for effective training" (Nelson, Whitener, & Philcox, 1995, p. 27). Chapter 6 outlines the results from the training needs analysis that identified the training needs of organisational leaders.

Conclusion

Three types of factors (learner characteristics, training design and work environment) influence whether learning from training will be transferred back into the work environment. It has been argued that any credible training evaluation approach must take these factors into account. Traditional approaches to training evaluation, such as that proposed by Kirkpatrick, go some way to measuring training transfer. However, his model ignores the individual learner characteristics that are likely to influence success of the training program, such as pre-training motivation. In addition, in practice it is not generally applied in the workplace in its entirety, thus diluting the usefulness of the approach and significantly limiting the claims of training effectiveness. Approaches such as Brinkerhoff and Apking's (2001) that highlight the importance of linking the training program with business impact and creating behavioural intentionality in the learner are likely to have the greatest chance of maximising training transfer, and, therefore, effectiveness. The current study will draw together aspects of HIL (Brinkerhoff & Apking, 2001) and SCM (Brinkerhoff, 2002) in the design of the evaluation study. The next chapter will outline the results of the training needs analysis conducted to inform the development of the online program. This approach ensured that the content of the program was relevant to leaders, thus increasing their motivation to complete it and to apply the learning in their workplace.

Chapter 6: Training Needs Analysis and Implications for the Development of the Online Workplace Mental Health Program

Introduction

The preceding chapters have reviewed the relevant literature, presented the background to the current evaluation study and argued that training programs need to be carefully designed to ensure that participant needs and preferences are reflected. This chapter begins with an overview of the training needs analysis approach used in the current study. A discussion of the aims of a training needs analysis conducted to identify the training needs of organisational leaders in relation to depression in the workplace and the hypotheses tested follows. Next, a description of the participants, procedures and measures used in this training needs analysis is provided. The results of this study are presented and methodological issues associated with the study design are discussed. As these results provided the framework for the online program, this chapter concludes with a discussion of the key implications for program design.

The Training Needs Analysis (TNA) Approach

The Training Needs Analysis (TNA) method has been described as a "process of asking questions, getting answers to them and verifying and documenting business problems which training can solve" (Tovey, 1997, p. 43). A TNA enables the careful and systematic analysis of the gaps in knowledge and skills among potential learners. The goal is to identify current problems that inhibit successful job performance in a specific area, for example, managing depression in the workplace (Kawaharada, 2005). This method improves the design and quality of the training program because content (and training method) can be directly targeted to gaps in learner knowledge and skills. One specific method used in this study to identify learning needs was to

analyse ratings of ‘confidence in’ and ‘importance of’ a range of skills and knowledge areas related to workplace mental health. A similar approach was taken by Dixon and colleagues (2003), who used this method to assess physician’s confidence and willingness to perform a range of women’s health skills on their patients. In the evaluation study, the most significant learning needs were identified by the biggest gaps between confidence and importance.

Aims and Hypotheses Tested in the Training Needs Analysis

The purpose of this training needs analysis was to identify the training needs of organisational leaders in relation to depression in the workplace. As outlined in Chapter 4, there is a paucity of research examining workplace mental health training programs directly targeting organisational leaders. It was, therefore, considered essential that an assessment of the learning needs of leaders be conducted before the online workplace mental health program could be developed for the current study.

An additional aim of the training needs analysis was to examine the individual differences between organisational leaders in relation to their confidence to address mental health at work and their perceptions of the importance of doing so. An examination of the depression stigma literature (as outlined in Chapter 3) suggests that there are several personal characteristics that predict higher levels of stigma (Angermeyer & Dietrich, 2006; K. Griffiths et al., 2008; A. Martin, 2010). These are: being male, from an older age group, having a low level of educational attainment, working in the private sector and having had less exposure to depression, for example, through a personal experience of it. Previous literature has also indicated that people with higher levels of depression stigma also have lower levels of mental health literacy (K. Griffiths et al., 2008), that is, knowledge and beliefs about mental disorders which aid their recognition, management and prevention (Jorm, 2000).

Based on these previous findings in the literature, as outlined in Chapter 3, about the predictors of stigma and the link between mental health knowledge and stigma for the purposes of this training needs analysis, it is hypothesised that five personal characteristics will be associated with lower ratings of confidence to address mental health at work by organisational leaders. These are being male, being from an older age group, having a lower level of educational attainment, working in the private sector and having no previous diagnosis of depression.

In addition, it is predicted that these characteristics will be associated with lower ratings of importance and confidence on a range of skills and knowledge areas related to managing mental health in the workplace.

The analysis of these individual differences among organisational leaders in this training needs analysis will be used to further shape the content and structure of the online program. In addition to the analysis of responses from organisational leaders, it was decided to include human resource (HR) and learning and development (L & D) professionals in the needs analysis. As HR and L & D professionals are generally responsible for the decisions in organisations about training needs of employees, including organisational leaders, their assessment of training needs of organisational leaders in this field was seen as an important complement to those of the leaders themselves. A similar approach was taken by Kawaharada (2005) where occupational health nurses were used to identify the workplace mental health training needs of managers in Japan. Part of the occupational health nurses' role was the organisation and provision of training for managers (that is, has some similarities to that of HR and L & D professionals). A further rationale for including data from HR and L & D professionals is that it may remove leaders' self-report bias.

One previous published report on an assessment of the training experiences and needs of managers regarding workplace mental health was conducted in Canada in 2011. Thorp and Chenier (2011) conducted a national survey of 1,010 workers, including 479 managers. Survey data was collected electronically and the researchers concluded that, despite their response rate being low (9.1 percent), the final sample was representative of the general population of employed Canadians. The results of this survey provide a useful comparison point for the current training needs analysis and will be discussed later in this chapter.

Method

Participants. Participants in the current study were 379 organisational leaders and 364 HR and L & D professionals. An invitation to voluntarily complete an online survey on the educational needs of organisational leaders in relation to mental health in the workplace was distributed to members of four professional associations and beyondblue's 'e-network' mailing list. Links to two versions of the same survey were distributed, one targeting organisational leaders (that is, someone who had at least one direct report who managed another employee) and one targeting HR and L & D professionals.

Leaders from organisations with less than 50 employees were excluded from the study. The justification for this exclusion criterion was that the role of senior leaders tends to be markedly different in small businesses compared to larger organisations. For example, there is generally less access to organisational support/resources for occupational health, and greater need for leaders to also take on managerial and operational duties compared to their equivalents from larger organisations (Martin, Sanderson, Scott, & Brough, 2009).

A portion of responses (n = 230) from leaders were excluded from the study as they met the exclusion criteria (81 responses from leaders in small businesses, 184 leaders who did not manage other managers and 35 who did not meet either criteria). Eighty-three responses from HR and L & D professionals were excluded (51 from small businesses, 44 from people who revealed on the survey that they were not actually HR and L & D professionals and 12 from people who did not meet either criteria). Therefore, participants in the current study were 379 organisational leaders and 364 HR and L & D professionals. As access to the pilot survey was not restricted to members of the relevant professional associations (and consequently, the survey link could have been forwarded to others who met the study inclusion criteria), a total response rate cannot be estimated.

Measures. Only one published study has examined the training needs of managers in relation to workplace mental health (Kawaharada, 2005). This study was qualitative in nature and involved thematic analysis of questions asked by managers in workplace mental health seminars. Therefore, the development of a new survey tool was required. Where possible, existing measures of similar constructs (for example, personal experience of depression) were reviewed and adapted, thus maximising content validity.

The two versions of the survey (leader version with 21 questions and HR and L & D version with 19 questions) developed for this training needs analysis contained both closed and open-ended questions (see Appendices A and B). These questions were divided into eight categories: demographics, screening questions, personal experience of depression, experience of managing depression in the workplace, participation in workplace mental health training, workplace mental health skills and knowledge, leaders' role and elements of an online program. Table 1 details the

measures used in the training needs analysis and provides example questions for each measure.

Table 1. *Overview of Measures Used in the Training Needs Analysis*

Question grouping	Example question	Type of measure
Demographic information	'*What is your gender?*'	One dichotomous and three nominal questions
Screening questions	'*Do you work in the area of human resources or learning & development?*'	Two dichotomous questions
Depression experience (adapted from Martin 2010)	'*Have you ever experienced depression?*'	Three dichotomous questions
Professional experience and confidence in dealing with depression at work	'*To your knowledge, have you ever worked with, managed or supervised someone who was experiencing depression?*'	Two questions rated on a 5-point Likert scale and a follow-up open ended question
Previous experience of workplace mental health training	'*Have you ever received any training from your organisation relevant to dealing with depression in the workplace?*'	Two dichotomous questions and four follow-up open ended questions
Organisational leaders' skills and knowledge regarding mental health The skills were chosen based on a review of the literature (skills were based on review of the literature, for example, Coe, 2009)	'*Effective treatment approaches to common mental health problems*' and '*Costs and business implications of mental health and illness*'	Eleven examples of skills and knowledge were rated on two 7-point Likert scales, one assessing importance and the other assessing confidence.
Perceptions of the role of leaders in the area of workplace mental health	'*As an organisational leader, what do you see as your role in terms of workplace mental health?*'	Open ended question
Preferences for elements in an online program (list was generated after analysis of e-learning design books, for example, Horton, 2006)	'*What sorts of elements would you like to see incorporated into the design of an online learning program for organisational leaders on managing depression in the workplace?*'	Selection of multiple options from list of 11 elements, for example, case studies and discussion forums.

Procedure. As the current measures were developed specifically for the training needs analysis, particular attention was given to pre-testing the measures, and the online survey as a whole, prior to data collection. This allowed identification of ambiguous wording, poor design or formatting of the questions, use of jargon in the questions or poor usability of the online survey software. The survey was pre-tested with 15 research professionals, workplace mental health specialists, organisational leaders and HR and L & D professionals. Pre-test participants were sent a link to the 'draft' online survey. They each completed the survey individually and provided their feedback to the researcher via email. Feedback related to survey format and typographical errors in content. Ensuring questions were comprehensible and the usability of the online survey was high meant that the risk of respondents not completing the survey was minimised (Bryman & Bell, 2007).

An online survey was conducted to ensure that views from a broad sample of organisational leaders, from a range of different workplaces, were collected. An additional benefit of conducting an online survey, such as the one in this study, on a stigmatised topic like mental health is that respondents can remain anonymous thus encouraging participation (Billings et al., 2008; F. Griffiths et al., 2006).

Participants were recruited through two channels. First, the membership managers of four relevant national professional associations were contacted and asked to circulate an invitation to complete the survey to their members. The professional associations contacted were the Australian Institute of Company Directors (AICD), the Australian Institute of Management (AIM), the Australian Human Resources Institute (AHRI) and the Australian Institute of Training and Development (AITD). The AICD agreed to email the invitation to a small (n = 25) group of members who had recently completed a Melbourne-based Company Directors' Course. The WA and

NSW/ACT branches of AIM emailed the invitation out to their members and associate members (n = ~ 8000). AHRI included an item in the October 2010 edition of their online newsletter promoting the survey to their members (n=20,000 approximately). The researcher purchased a small advertisement promoting the survey in AITD's online newsletter, which was distributed to their membership list (n=3,300 approximately). Second, an invitation to participate in the survey, along with the study inclusion criteria, was emailed to beyondblue's 'e-network' distribution list. The 'e-network' is an electronic database held by beyondblue. It has approximately 22, 000 members who have subscribed to receive further information about depression, anxiety and beyondblue's work as a whole. It is unknown how many members of beyondblue's e-network meet the inclusion criteria of this study.

A link to the online survey (hosted in Survey Gizmo) was circulated through the methods detailed above. The current research was approved by the Human Research Ethics Committee (Tasmania) Network of the University of Tasmania (see Appendix C). A plain language information sheet was circulated with the invitation to participate and linked to from the survey itself. Completing the survey was considered evidence of informed consent.

Results.

Following the export of survey responses from the online software tool to SPSS software package, screening was conducted and, descriptive statistics were calculated in the SPSS software package for the quantitative questions. Thematic analysis was conducted on the open-ended questions. In addition, *t*-tests were carried out to determine the level of statistical significance between the score of organisational leaders and HR and L & D professionals in relation to rated importance and confidence on a range of mental health skills and knowledge areas.

The qualitative data generated from open-ended survey questions was analysed for common themes. This approach borrows from the coding method used in grounded theory, that "entails reviewing transcripts and/or field notes and giving labels (names) to component parts that seem to be of potential theoretical significance and/or that appear to be particularly salient within the social worlds of those being studied" (Bryman & Bell, 2007, p. 586). A standard content analysis of the qualitative data was conducted for each open-ended question (Bradley, Curry, & Devers, 2007). First, all responses were read by the researcher in order to gain an overview of the major issues. Upon the second reading of the responses, categories were developed. A number of themes were identified for each open-ended question and several categories were developed and defined for the purposes of coding the data (see Appendix D for a full listing of the thematic coding descriptions used for each open-ended question).

The researcher then coded responses to each open-ended question against the themes. As answering the open-ended questions was voluntary, for each question there were a number of participants who chose not to respond (total response numbers for each open-ended question are outlined below). A second rater (who was a colleague of the researcher specialising in workplace mental health) independently recoded approximately 20 percent of the data using the categories previously developed. Inter-rater reliability was above 83 percent for each question. Discussions between the two raters following this process enabled 100 percent agreement on those 20 percent. Overall the high level of consistency between the coders supported the reliability of the coding system. The coding conducted by the researcher was used for data analysis purposes.

Demographic characteristics of the training needs analysis sample.

Table 2 outlines the demographic characteristics of the sample. There were slightly more male leaders who participated in the study then female leaders[6], with many more female HR and L & D professionals participating than male. The average age of participants was slightly lower for HR and L & D professionals than for organisational leaders. This pattern was reversed on education level, with slightly HR and L & D professionals holding tertiary qualifications than organisational leaders. However, not surprisingly given the sample, the vast majority of respondents in both groups were tertiary educated. The majority of leaders in the sample worked in the private sector and the majority of HR and L & D professionals worked in the public sector. Approximately one fifth of both organisational leaders and HR and L & D professionals worked in the not-for-profit or community sectors.

Personal experience of depression. The majority of leaders and HR and L & D professionals who responded to the survey reported an experience of depression (65 and 70 percent, respectively), with a large minority of respondents having received a diagnosis of depression (38 percent of leaders and 48 percent of HR and L & D professionals). In addition, a large majority of respondents reported having a family member or close friend experience depression (83 percent of leaders and 88 percent of HR and L & D professionals).

[6] This gender split is broadly representative of the gender split in Australian management and leadership roles, with approximately 40 percent of these roles in Australia being held by women (see online fact sheet published by the Workplace Gender Equality Agency Australia at www.wgea.gov.au).

Table 2. *Demographic Characteristics of the Training Needs Analysis Sample*

	n (%)	
	Leaders (*n*=379)	HR (*n*=364)
Gender		
Male	164 (57)	76 (21)
Female	215 (43)	288 (79)
Age range		
18-24 years	2 (1)	17 (5)
25-30 years	22 (6)	47 (13)
31-40 years	88 (23)	98 (27)
41-50 years	137 (36)	117 (32)
51-60 years	117 (31)	81 (22)
61 years or older	13 (3)	4 (1)
Highest education level		
Primary school	0	0
Secondary school	30 (8)	13 (4)
Vocational training (e.g., trade certificate)	16 (4)	9 (3)
Tertiary (e.g., diploma, bachelor degree)	217 (57)	238 (65)
Post graduate (e.g., masters or doctorate)	116 (31)	104 (29)
Type of organisation		
Public sector	136 (36)	149 (41)
Private sector	159 (42)	136 (37)
Not for profit/community	72 (19)	72 (20)
Other	12 (3)	7 (2)

Professional experience of managing depression at work. Experience with depression in the workplace was prevalent, with 68 percent (*n* = 257) of leaders reporting that they had worked with, or managed, someone who was experiencing depression. These leaders were asked to "*provide a brief summary of the situation, major workplace issues, strategies/approaches you used and outcomes*". Qualitative data were analysed and 13 themes were identified, under 3 sub-headings[7]. See Table 3

[7] Due to the nature of these questions many responses were assigned more than one code. See Appendix D for more information.

for summary, frequencies of responses and example quotes. There were seven key themes identified in their general summaries of the situation. These were: diagnosed mental health problem, relationship problem (either at home or in the workplace), bullying in the workplace, experience of workplace stress, productivity issues, absenteeism and lack of motivation displayed at work.

Respondents identified four key strategies and/or approaches that they used in the situation described. These were: general support offered to employee (including communication, more regular contact, demonstrating understanding and listening to issues), referral to counselling outside the workplace, referral to workplace-funded EAP, and flexibility in work role negotiated (for example, reduced hours or workload and/or time off work to seek treatment). These are also summarised in Table 3.

Table 3. *Summary of Themes and Example Quotes from Leaders' Qualitative Descriptions of Experiences Working With, Managing, or Supervising an Employee with Depression*

Theme	*n* (%) Total responses = 259	Example quote
Situation:		
Mental health problem	57 (22)	"*Post natal depression - lack of confidence, focus, and mind on the job. Strategies included external independent employee support, time off work and conversation and support*" (leader, female, 41-50 years old, private sector).
Relationship problems	20 (8)	"*Employee was diagnosed with depression from a relationship break up, couldn't complete work, couldn't concentrate, often off sick - supported him by reducing workload, allowing time off to see a counsellor, giving him extended time of to sort things out*" (leader, female, 25-30 years, private sector).
Bullying	4 (2)	"*Employee was being bullied and had relationship break up. Referred to Employee Assistance Program and offered, and accepted, period of time in alternative workplace while bullying investigated and resolved. The person left the organisation*" (leader, female, 41-50 years, public sector).
Productivity	24 (9)	"*Major workplace issue is the loss of productivity and other team members having to cover in the absence of the employee. Whilst members of the team are compassionate for the individual over a period of time having to carry the extra workload can create added tension and feeling of letting the team down by the individual. Our organisation does provide free counselling to support individuals but over a long period of time it does become a performance issue which is difficult to manage*" (leader, female, 41-50 years private sector).
Absenteeism	17 (7)	"*Bi polar disease. Major issues were absenteeism, and when having a manic episode she would come in very passionate with all sorts of ideas to improve things, however her ideas were often unrealistic and she displayed a gung-ho approach to making the improvements. In the process caused a lot of unrest within the team and made changes without management approval*" (leader, female, 25-30 years private sector).
Workplace stress	4 (2)	"*Employee found it difficult to work effectively with his team which often led to him getting very 'stressed'. Tried to be as supportive as possible*" (leader, male, 31-40 years private sector).
Motivation	3 (1)	"*Lack of motivation, lack of self confidence. Encouraged them to seek professional help also organised reduced responsibilities and time off*" (leader, male, 51-60 years private sector).

Strategies/approaches:		
General support	77 (30)	"*At the time I had limited knowledge, I offered support through paid sick leave, refusing resignation, offering extended unpaid leave e.g. career break, meeting with staff member at her home, engaging other colleagues to assist provide positive support*" (leader, female, 41-50 years, private sector).
Provision of counselling	47 (18)	"Encouraged counselling and set modified duties" (leader, male, 41-50 years, private sector).
EAP offered	38 (15)	"*I generally talk to them then refer to the counselling service provided to employees*" (leader, female, 51-60 years, public sector).
Flexible hours	63 (24)	"*Worked with GP's management plan. Kept stress and work contact time consistent with plan. Provided unlimited flexibility in which to allow the employee to recover at their own rate*" (leader, male, 41-50 years, private sector).
Outcomes:		
Resignation/ dismissal	18 (7)	"*I cannot say the person was medically diagnosed…[They] appeared to be easily prone to illness, but also exhibited 'victim' mentality. I tried the empathetic approach, and endeavoured to listen to their issues and concerns re work. Due to on-going absences the new [work] area went to proceed to fitness for duty assessment, but before that could be completed the person tended their resignation. I thought I could support and assist, but I felt I failed*" (leader, male, 51-60 years, public sector).
Other (See Appendix D)	25 (10)	

The illustrative examples in Table 3 provide an insight into the experiences of organisational leaders in managing depression (or another mental illness) in the workplace and the strategies and approaches they have employed to help deal with those situations.

Confidence to effectively support the management of someone at work with depression. Sixty-three percent of leaders reported feeling at least somewhat confident to effectively support the management of someone at work with depression, with a quarter stating that they were not very confident to do so (see Figure 7 below). This can be contrasted with the findings from HR and L & D professionals, with only 39 percent reporting that they were at least somewhat confident that their leadership team knew how to support the management of an employee with depression. An independent samples *t*-test was conducted to determine whether there was a significant difference in this level of confidence reported by leaders and HR and L & D professionals. The mean confidence score for leaders was 3.5 and 2.9 for leaders and HR and L & D professionals, respectively. The difference between the mean scores was statistically significant, $t(741) = 7.74$, $p < .001$.

Responses to this question were further analysed by splitting the data by various personal characteristics of organisational leaders (see Figure 7 for summary). This analysis revealed that 70 percent of female leaders reported feeling at least somewhat confident to effectively support the management of someone at work with depression compared to 33 percent of male leaders, 79 percent of leaders with a previous diagnosis of depression were at least somewhat confident to support the management of someone with depression compared to 54 percent of leaders without a personal experience and 78 percent of leaders from the not-for-profit and community sectors were at least somewhat confident to support the management of someone with

depression compared to 64 percent and 56 percent of leaders from the public and private sectors, respectively. There were no differences for leaders of different ages or educational attainment.

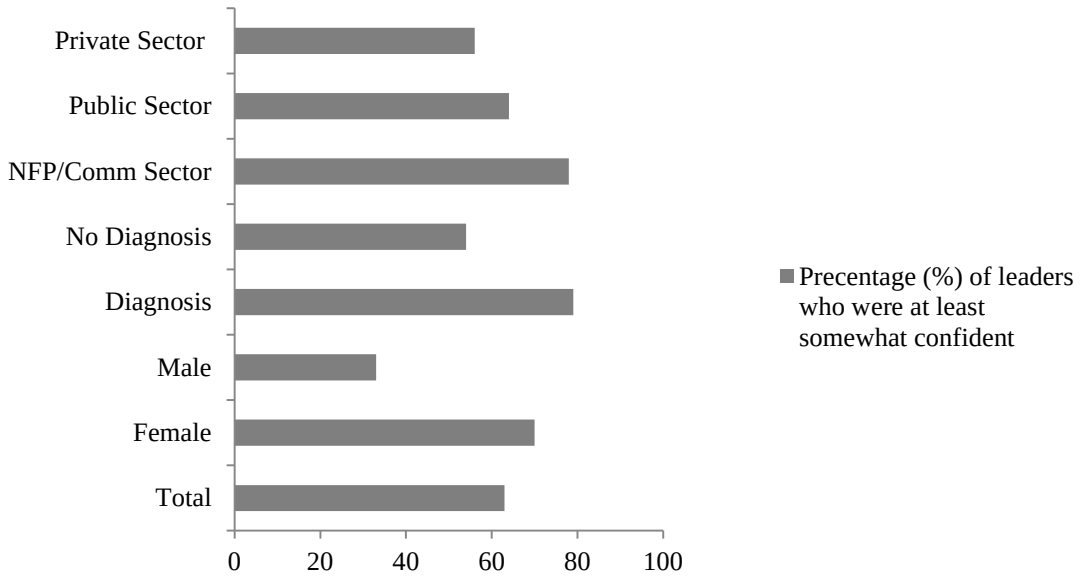

Figure 7. Leaders who reported being at least somewhat confident to support the management of an employee with depression, split by gender, diagnosis of depression, and sector.

Experience of workplace mental health training programs. Only 14 percent of organisational leaders reported participating in specific training related to managing mental health in the workplace. Of those who had, the majority had participated in Mental Health First Aid (n = 13 out of 50) and beyondblue training (n = 8) (see Table 4 for summary). Leaders were asked which elements of the training program had been useful. Their responses were analysed and four key themes were identified. These were: identifying and understanding mental health conditions, information about services and resources, workplace strategies for responding to mental health conditions and the provision of case studies and examples. These themes are illustrated by the comments below:

Identifying and understanding mental health conditions. "*Greater understanding of possible extent of depression as an unrecognised workplace issue*" (leader, female, 41-50 years, public sector).

Information about services and resources. "*Raised awareness in the workplace and contacts for assistance to managers if an issue arises*" (leader, male, 31-40 years, public sector).

Workplace strategies for responding to mental health conditions. "*All information, including how to ensure boundaries are clear and how to manage expectations in the workplace"* (leader, female, 51-60 years, not-for-profit/community sector).

The provision of case studies and examples. "*The case studies and practical ideas for how to support people"* (leader, female, 41-50 years, public sector).

Organisational leaders were then asked if there were any ways that the training they attended could have been improved. Responses to this question were analysed and four key themes identified. These were: repeat training and updates, more detailed information, written resources/strategies guide and provision of case studies. These themes are illustrated by the comments below:

Repeat training and updates. "*Regular refresher would be very useful*" (leader, female, 51-60 years, not for profit/community sector).

More detailed information. "*More comprehensive information on depression and tips/guidelines for managers and leaders on how to identify employees suffering from mental health issues. This would provide some tools and a framework that enabled me to better identify when someone may need help*" (leader, female, 51-60 years, not for profit/community sector).

Written resources/strategies guide. "*Links to HR practices – examples of policies that organisations could be developed to support people experiencing mental health difficulties. Additionally, guidance on developing workplace wellbeing strategies*" (leader, female, 41-50 years, not for profit/community sector).

Provision of case studies. "*It was a little generic, specific case studies would have been more useful*" (leader, male, 41-50 years, private sector).

The results from HR and L & D professionals were broadly consistent with those from leaders (see Table 4 below for summary).

Table 4. *Type of Workplace Training Received by Leaders and Organised by HR and L & D Professionals for Dealing with Depression*

Type of training	Organisational Leaders (Total *n* = 50) *n* (%)	HR and L & D Professionals (Total *n* = 84) *n* (%)
Mental Health First Aid	13 (26)	23 (27)
Beyondblue*	8 (16)	16 (19)
EAP	3 (6)	8 (9)
Suicide prevention	1 (2)	2 (2)
Black Dog Institute*	1 (2)	n/a
Mental health awareness	0	15 (18)
Wellbeing/ stress management	0	3 (4)
Managing workplace mental health	0	3 (4)
Other (see Appendix D)	26 (52)	14 (16)

* Australian mental health charity

Leaders were also asked if they had actively promoted a mental health promotion initiative in their workplace; 39 percent indicated that they had. HR and L & D professionals were asked if their leadership teams had actively supported mental health promotion activities in their workplace, 43 percent said they had. Their responses were analysed and 9 themes identified: provision of counselling services (*n* = 30 leaders, *n* = 30 HR and L & professionals), beyondblue (*n* = 25 leaders, *n* = 12 HR and L & professionals), training/workshops/information sessions (*n* = 22 leaders, *n* = 13 HR and L & professionals), general awareness raising (*n* = 17 leaders, *n* = 6 HR and L & professionals), poster/brochures/information made available (*n* = 10 leaders, *n* = 7 HR and L & professionals), Movember (*n* = 10 leaders, *n* = 5 HR and L & professionals), RUOK?Day (*n* = 9 leaders, *n* = 13 HR and L & professionals), health and wellbeing and stress management programs (*n* = 7 leaders, *n* = 17 HR and L & professionals) and other fundraising activities (*n* = 3 leaders, *n* = 9 HR and L & professionals). Below are selected participant comments that illustrate several of these themes:

beyondblue. "*Promoting awareness of mental health services/initiatives* - beyondblue, *government rebate on psych visits, etc*" (leader, female, 18-24 years, not for profit/community sector).

Training/workshops/information sessions. "*Mental Health First Aid is mandatory for all employees*" (HR and L & D professional, female, 51-60 years, not for profit/community sector).

Movember. "My partner has done Movember for the last few years and I have spoken in the workplace about the cause" (leader, male, 25-30 years, private sector).

Health and wellbeing program. "*I am on the wellness committee*" (leader, female, 31-40 years, public sector).

Stress management. "*Introduced staff meditation and stress management*" (leader, male, 41-50 years, public sector).

Skills and knowledge related to managing mental health in the workplace. Leaders and HR and L & D professionals were asked to rate a list of skills and knowledge related to workplace mental health on a 7-point Likert scale in terms of importance (1 = not at all important and 7 = extremely important) and confidence (1 = not at all confident and 7 = extremely confident). As can be seen from Table 5, there was consistency between responses from leaders and HR and L & D professionals in terms of skills/knowledge areas they rated the most important from the list, with the

following five areas being the highest rated: common signs and symptoms of common mental health problems, management strategies to support and manage employees with depression, the role of leaders in promoting and supporting good mental health, the impact of organisational culture/working conditions on mental health and strategies for managing your own mental health and building resilience. In addition, HR and L & D professionals rated 'relevant policies, procedures and legal obligations' as high on level of importance for organisational leaders.

In terms of confidence, as can be seen from Table 5, there was some consistency between responses from leaders and HR and L & D professionals in terms of which skills/knowledge areas they rated highest, with the following rated highest on confidence for both groups: risk and protective factors, common signs and symptoms of common mental health problems and strategies for managing your own mental health and building resilience.

Overall, all skill and knowledge areas were rated as important by leaders and HR and L & D professionals and 'importance' ratings were higher than 'confidence' ratings on all skills and knowledge areas for both groups of staff. In addition, HR and L & D professionals rated 'costs and business implications of mental health and illness' and 'relevant policies, procedures and legal obligations' and as high on level of confidence for organisational leaders. Leaders identified an additional two items in which they were most confident: 'role of leaders in promoting and supporting good mental health' and 'impact of organisational culture/working conditions on mental health'.

As outlined in Table 5, leaders rated their confidence the lowest for the following skills/knowledge areas: effective treatment approaches to common mental health problems, costs and business implications of mental health and illness,

management strategies to support and manage employees with depression, types of evidence-based workplace mental health programs and relevant policies, procedures and legal obligations.

Whilst there are some similarities, HR and L & D professionals gave a different set of responses, indicating that they had the lowest confidence in the following skills/knowledge areas for their leadership team: types of mental health problems, effective treatment approaches to common mental health problems, management strategies to support and manage employees with depression, role of leaders in promoting and supporting good mental health and types of evidence-based workplace mental health programs.

Table 5. *Leaders' and HR and L & D Professionals' Ratings of Specific Knowledge and Skills for Managing Workplace Mental Health*

	Leaders			HR/L & D		
	Importance	Confidence	Difference	Importance	Confidence	Difference
	Mean (SD) (range 1-7)		Scores*	Mean (SD) (range 1-7)		Scores*
Risk and protective factors	5.8 (1.2)	4.1 (1.6)	1.7	5.9 (1.1)	3.5 (1.7)	2.4
Common signs and symptoms of mental health	6.2 (.8)	4.4 (1.6)	1.8	6.3 (.9)	3.5 (1.7)	2.8
Types of mental health problems	5.4 (1.2)	4.0 (1.7)	1.4	5.6 (1.2)	3.4 (1.6)	2.2
Effective treatment approaches to common mental health problems	5.5 (1.4)	3.7 (1.6)	1.8	5.4 (1.3)	3.2 (1.7)	2.2
Costs and business implications of mental health and illness	5.3 (1.3)	3.8 (1.6)	1.5	5.7 (1.2)	3.6 (1.7)	2.1
Management strategies to support and manage employees with depression	6.3 (1.0)	3.9 (1.7)	2.4	6.4 (.9)	3.3 (1.7)	3.1
Role of leaders in promoting and supporting good mental health	6.1 (1.1)	4.3 (1.7)	1.8	6.3 (.8)	3.4 (1.7)	2.9
Impact of organisational culture/working conditions on mental health	6.1 (1.0)	4.3 (1.7)	1.8	6.3 (.9)	3.5 (1.8)	2.8
Strategies for managing your own mental health and building resilience	6.2 (1.1)	4.6 (1.6)	1.6	6.2 (.9)	3.7 (1.7)	2.5
Types of evidence-based workplace mental health programs	5.6 (2.0)	3.4 (1.6)	2.2	5.8 (1.1)	3.0 (1.6)	2.8
Relevant policies, procedures and legal obligations	5.6 (1.3)	3.6 (1.7)	2	6.0 (1.1)	3.6 (1.7)	2.4

* Difference scores were calculated by subtracting the mean ‘confidence’ score from the mean ‘importance’ score for each item.

Table 5 shows the difference scores (that is, gap) between rated importance and confidence on each of the skills/knowledge areas.

A series of independent samples *t*-tests were conducted to test for statistically significant differences between the response pattern from organisational leaders and HR and L & D professionals on each of the knowledge and skills areas. As detailed in Table 6, results of the *t*-tests revealed few statistical significant differences on ratings of importance and many significant differences on ratings of confidence.

The responses to this set of questions were further analysed by splitting the data by various personal characteristics of organisational leaders (please see Tables 7 to 13 below for the data split by gender, personal experience of depression, sector, age and educational attainment). This analysis revealed that the importance and confidence ratings were consistently higher for female leaders, for leaders with a previous diagnosis of depression and for leaders in the not-for-profit and community sectors. However, there were no consistent differences identified when the data was split by age and educational attainment.

Table 6. *Results of the Significance Testing (Independent t-Tests) of the Differences between Responses from Leaders and HR and L & D Professionals*

	Importance					Confidence				
	Leaders M (SD)	CIs 95%	HR/L & D (SD)	CIs 95%	*p* scores (*p* value)	Leaders M (SD)	CIs 95%	HR/L & D M (SD)	CIs 95%	*p* scores (*p* value)
Risk and protective factors	5.8 (1.2)	5.66-5.89	5.9 (1.1)	5.75-5.98	-1.07 (.28)	4.1 (1.6)	3.91-4.22	3.5 (1.7)	3.27-3.62	5.20 (<.01)
Common signs and symptoms of mental health	6.2 (0.8)	6.07-6.27	6.3 (0.9)	6.20-6.39	-1.83 (.07)	4.4 (1.6)	4.23-4.55	3.5 (1.7)	3.33-3.67	7.45 (<.01)
Types of mental health problems	5.4 (1.2)	5.31-5.56	5.6 (1.2)	5.45-5.71	-1.59 (.11)	4.0 (1.7)	3.81-4.14	3.4 (1.6)	3.23-3.56	4.81 (<.01)
Effective treatment approaches to common mental health problems	5.5 (1.4)	5.34-5.62	5.4 (1.3)	5.24-5.51	1.08 (.28)	3.7 (1.6)	3.54-3.87	3.2 (1.7)	3.02-3.36	4.28 (<.01)
Costs and business implications of mental health and illness	5.3 (1.3)	5.13-5.40	5.7 (1.2)	5.62-5.86	-5.15 (<.01)	3.8 (1.6)	3.63-3.96	3.6 (1.7)	3.43-3.78	1.57 (.12)
Management strategies to support and manage employees with depression	6.3 (1.0)	6.16-6.36	6.4 (0.9)	6.25-6.44	-1.27 (.21)	3.9 (1.7)	3.70-4.04	3.3 (1.7)	3.10-3.45	4.82 (<.01)
Role of leaders in promoting and supporting good mental health	6.1 (1.1)	6.02-6.24	6.3 (0.8)	6.23-6.40	-2.60 (.01)	4.3 (1.7)	4.14-4.47	3.4 (1.7)	3.26-3.61	7.07 (<.01)
Impact of organisational culture/working conditions on mental health	6.1 (1.0)	6.01-6.22	6.3 (0.9)	6.21-6.39	-2.61 (.01)	4.3 (1.7)	4.17-4.51	3.5 (1.8)	3.31-3.68	6.64 (<.01)
Strategies for managing your own mental health and building resilience	6.2 (1.1)	6.09-6.30	6.2 (0.9)	6.10-6.29	.04 (.97)	4.6 (1.6)	4.45-4.78	3.7 (1.7)	3.49-3.83	7.86 (<.01)
Types of evidence-based workplace mental health programs	5.6 (2.0)	5.51-5.75	5.8 (1.1)	5.65-5.87	-1.55 (.12)	3.4 (1.6)	3.21-3.53	3.0 (1.6)	2.86-3.19	2.90 (.01)
Relevant policies, procedures and legal obligations	5.6 (1.3)	5.50-5.76	6.0 (1.1)	5.88-6.11	-4.20 (<.01)	3.6 (1.7)	3.47-3.82	3.6 (1.7)	3.37-3.73	.70 (.48)

Leadership role in managing mental health at work. Both leaders and HR and L & D professionals were asked to respond to an open-ended question about their perceptions of the role of organisational leaders in relation to workplace mental health. Reponses (leaders n = 298, HR and L & D, n = 227) were analysed for themes and 9 themes were identified for leaders. These were: (i) providing support to the person experiencing a mental health issue, (ii) promoting a healthy workplace culture and environment, (iii) raising awareness and being aware of employee mental health and wellbeing, (iv) identifying signs and symptoms, (v) promoting understanding and knowledge about mental health services and resources, (vi) being a positive role model, (vii) referring to or assisting access to services, (viii) implementing and promoting policies on mental health and (ix) minimising the impacts to business. The following examples illustrate several of these themes:

Promoting a healthy workplace culture and environment. "*Promote a workplace that manages workload and workflow to ensure good results but maintains morale and health and safety of the team. Lead by example and promote and support strategies to deal with pressure and good health*" (leader, female, 31-40 years, public sector).

Providing support to the person experiencing a mental health issue. "*That employees are comfortable in discussing their situation with the business, and putting in place resources to support them as would be done for any other illness*" (leader, male, 31-40 years, private sector).

Being a positive role model. "*Promote balanced work/life strategies & leading by example*" (leader, male, 41-50 years, not-for-profit/community sector).

Implementing and promoting policies on mental health. "*To understand policies, procedures and legal obligations and then know how to identify signs of mental health issues with my team"* (leader, male, 41-50 years, not-for-profit/community sector).

Table 7. *Leaders' Ratings of Specific Knowledge and Skills for Managing Workplace Mental Health Split by Gender*

	Male (n=215)		Females (n=164)	
	Importance	Confidence	Importance	Confidence
	M (SD) (range 1-7)		M (SD) (range 1-7)	
Risk and protective factors	5.6 (1.1)	3.9 (1.5)	6.0 (1.2)	4.3 (1.6)
Common signs and symptoms of mental health	6.1 (1.0)	4.2 (1.6)	6.3 (1.0)	4.7 (1.6)
Types of mental health problems	5.2 (1.2)	3.7 (1.6)	5.7 (1.3)	4.4 (1.6)
Effective treatment approaches to common mental health problems	5.3 (1.4)	3.5 (1.6)	5.7 (1.3)	3.9 (1.6)
Costs and business implications of mental health and illness	5.2 (1.3)	3.8 (1.6)	5.4 (1.3)	3.9 (1.7)
Management strategies to support and manage employees with depression	6.1 (1.0)	3.6 (1.6)	6.5 (0.9)	4.2 (1.7)
Role of leaders in promoting and supporting good mental health	6.1 (1.1)	4.1 (1.6)	6.4 (1.0)	4.6 (1.7)
Impact of organisational culture/working conditions on mental health	6.0 (1.1)	4.1 (1.6)	6.3 (1.0)	4.7 (1.7)
Strategies for managing your own mental health and building resilience	6.1 (1.1)	4.3 (1.7)	6.4 (1.0)	5.0 (1.5)
Types of evidence-based workplace mental health programs	5.5 (1.2)	3.3 (1.6)	5.8 (1.2)	3.5 (1.6)
Relevant policies, procedures and legal obligations	5.4 (1.3)	3.5 (1.7)	6.0 (1.2)	3.9 (1.8)

Table 8. *Leaders' Ratings of Specific Knowledge and Skills for Managing Workplace Mental Health Split by Diagnosis of Depression*

	Diagnosis (n=144)		No Diagnosis (n=235)	
	Importance	Confidence	Importance	Confidence
	M (SD) (range 1-7)		M (SD) (range 1-7)	
Risk and protective factors	6.1 (1.1)	4.6 (1.5)	5.6 (1.2)	3.8 (1.5)
Common signs and symptoms of mental health	6.3 (.9)	5.1 (1.4)	6.1 (1.0)	3.9 (1.6)
Types of mental health problems	5.6 (1.3)	4.6 (1.5)	5.3 (1.2)	3.6 (1.6)
Effective treatment approaches to common mental health problems	5.7(1.3)	4.4 (1.5)	5.4 (1.4)	3.3 (1.6)
Costs and business implications of mental health and illness	5.4 (1.3)	4.2 (1.6)	5.2 (1.4)	3.6 (1.6)
Management strategies to support and manage employees with depression	6.5 (.8)	4.3 (1.6)	6.1 (1.0)	3.6 (1.6)
Role of leaders in promoting and supporting good mental health	6.4 (.9)	4.8 (1.6)	6.0 (1.2)	4.0 (1.7)
Impact of organisational culture/working conditions on mental health	6.4 (.9)	4.9 (1.6)	6.0 (1.1)	4.0 (1.6)
Strategies for managing your own mental health and building resilience	6.5 (.8)	5.2 (1.4)	6.0 (1.2)	4.3 (1.7)
Types of evidence-based workplace mental health programs	5.9 (1.1)	3.8 (1.6)	5.5 (1.2)	3.1 (1.5)
Relevant policies, procedures and legal obligations	5.9 (1.2)	4.0 (1.8)	5.5 (1.3)	3.4 (1.7)

Table 9. *Leaders' Ratings of Specific Knowledge and Skills for Managing Workplace Mental Health Split by Sector*

	NFP/Community (n=72)		Public (n=136)		Private (n=159)	
	Importance	Confidence	Importance	Confidence	Importance	Confidence
	M (SD) (range 1-7)		M (SD) (range 1-7)		M (SD) (range 1-7)	
Risk and protective factors	6.1 (1.3)	4.5 (1.5)	5.7 (1.2)	4.1 (1.6)	5.7 (1.1)	3.8 (1.6)
Common signs and symptoms of mental health	6.3 (.9)	4.9 (1.5)	6.2 (1.0)	4.4 (1.5)	6.1 (1.0)	4.2 (1.7)
Types of mental health problems	5.7 (1.2)	4.6 (1.7)	5.5 (1.2)	4.0 (1.6)	5.3 (1.3)	3.7 (1.7)
Effective treatment approaches to common mental health problems	5.5 (1.4)	4.3 (1.8)	5.6 (1.4)	3.8 (1.5)	5.4 (1.4)	3.4 (1.6)
Costs and business implications of mental health and illness	5.4 (1.3)	4.3 (1.6)	5.2 (1.3)	3.8 (1.6)	5.3 (1.4)	3.5 (1.7)
Management strategies to support and manage employees with depression	6.4 (1.0)	4.4 (1.6)	6.3 (1.0)	3.9 (1.6)	6.2 (1.0)	3.6 (1.7)
Role of leaders in promoting and supporting good mental health	6.3 (1.0)	5.0 (1.8)	6.1 (1.1)	4.4 (1.5)	6.1 (1.1)	4.0 (1.7)
Impact of organisational culture/working conditions on mental health	6.4 (.8)	5.1 (1.7)	6.2 (1.0)	4.3 (1.6)	6.0 (1.1)	4.0 (1.7)
Strategies for managing your own mental health and building resilience	6.3 (1.0)	4.9 (1.5)	6.3 (1.0)	4.6 (1.5)	6.1 (1.2)	4.5 (1.8)
Types of evidence-based workplace mental health programs	6.0 (1.1)	3.7 (1.6)	5.6 (1.9)	3.4 (1.6)	5.5 (1.3)	3.2 (1.6)
Relevant policies, procedures and legal obligations	6.2 (1.2)	4.3 (1.7)	5.4 (1.3)	3.8 (1.7)	5.6 (1.3)	3.3 (1.7)

Table 10. *Leaders' Ratings of the Importance of Specific Knowledge and Skills for Managing Workplace Mental Health Split by Age*

	18-24 yrs (n=2)	25-30 yrs (n=22)	31-40 yrs (n=88)	41-50 yrs (n=137)	51-60 yrs (n=117)	61 yrs + (n=13)
Risk and protective factors	6.0 (1.4)	6.1 (1.1)	5.6 (1.2)	5.7 (1.2)	5.9 (1.1)	6.2 (1.1)
Common signs and symptoms of mental health	5.5 (2.1)	6.4 (1.0)	6.2 (.9)	6.0 (1.1)	6.3 (.8)	6.4 (1.1)
Types of mental health problems	6.0 (1.4)	5.6 (1.1)	5.4 (1.2)	5.3 (1.2)	5.6 (1.3)	5.0 (1.4)
Effective treatment approaches to common mental health problems	5.5 (2.1)	5.8 (1.1)	5.4 (1.4)	5.3 (1.5)	5.7 (1.3)	5.1 (1.3)
Costs and business implications of mental health and illness	6.0 (1.4)	5.1 (1.2)	5.2 (1.4)	5.3 (1.4)	5.4 (1.2)	4.9 (1.3)
Management strategies to support and manage employees with depression	6.5 (.7)	6.5 (0.8)	6.1 (1.0)	6.2 (1.0)	6.4 (.9)	6.1 (1.1)
Role of leaders in promoting and supporting good mental health	7.0 (.0)	6.3 (1.0)	6.0 (1.2)	6.0 (1.2)	6.4 (.9)	5.9 (1.0)
Impact of organisational culture/working conditions on mental health	7.0 (.0)	6.4 (.8)	5.8 (1.2)	6.1 (1.0)	6.2 (1.0)	6.1 (1.0)
Strategies for managing your own mental health and building resilience	6.0 (1.4)	6.4 (.9)	6.1 (1.1)	6.1 (1.1)	6.4 (.9)	5.4 (1.9)
Types of evidence-based workplace mental health programs	6.5 (.7)	5.7 (1.0)	5.3 (1.2)	5.6 (1.2)	5.9 (1.1)	5.3 (1.4)
Relevant policies, procedures and legal obligations	7.0 (.0)	5.9 (1.1)	5.3 (1.4)	5.7 (1.3)	5.7 (1.2)	5.6 (1.0)

Table 11. *Leaders' Ratings of Confidence Related to Specific Knowledge and Skills for Managing Workplace Mental Health Split by Age*

	18-24 yrs (n=2)	25-30 yrs (n=22)	31-40 yrs (n=88)	41-50 yrs (n=137)	51-60 yrs (n=117)	61 yrs + (n=13)
Risk and protective factors	3.5 (.7)	4.1 (1.8)	3.9 (1.5)	4.0 (1.5)	4.3 (1.6)	4.1 (1.3)
Common signs and symptoms of mental health	3.0 (.0)	4.6 (1.8)	4.4 (1.6)	4.2 (1.5)	4.5 (1.6)	4.5 (1.5)
Types of mental health problems	4.0 (1.4)	4.3 (1.9)	4.2 (1.6)	3.8 (1.6)	4.0 (1.7)	4.2 (1.6)
Effective treatment approaches to common mental health problems	3.5 (.7)	3.9 (1.6)	3.7 (1.5)	3.6 (1.6)	3.8 (1.8)	3.9 (1.6)
Costs and business implications of mental health and illness	4.5 (2.1)	3.2 (1.6)	3.5 (1.6)	3.9 (1.7)	4.0 (1.6)	3.9 (1.3)
Management strategies to support and manage employees with depression	3.5 (.7)	3.9 (1.8)	3.7 (1.4)	3.8 (1.7)	4.1 (1.7)	4.3 (1.7)
Role of leaders in promoting and supporting good mental health	4.5 (2.1)	4.7 (2.0)	4.1 (1.5)	4.2 (1.7)	4.6 (1.7)	4.5 (1.7)
Impact of organisational culture/working conditions on mental health	4.5 (2.1)	4.6 (1.8)	4.1 (1.5)	4.4 (1.7)	4.4 (1.7)	4.5 (1.8)
Strategies for managing your own mental health and building resilience	3.0 (.0)	5.3 (1.8)	4.5 (1.6)	4.6 (1.6)	4.8 (1.6)	3.9 (1.5)
Types of evidence-based workplace mental health programs	2.5 (.7)	3.3 (1.2)	3.1 (1.5)	3.4 (1.6)	3.6 (1.7)	3.3 (1.5)
Relevant policies, procedures and legal obligations	2.5 (.7)	3.5 (1.6)	3.3 (1.7)	3.7 (1.7)	3.8 (1.8)	3.8 (1.6)

Table 12. *Leaders' Ratings of the Importance of Specific Knowledge and Skills for Managing Workplace Mental Health Split by Education Level*

	Secondary School (n=30)	Vocational Training (n=16)	Tertiary (n=217)	Post Graduate (n=116)
Risk and protective factors	5.6 (1.2)	6.1 (1.0)	5.8 (1.2)	5.9 (1.2)
Common signs and symptoms of mental health	5.9 (1.1)	6.1 (1.1)	6.2 (1.0)	6.2 (.9)
Types of mental health problems	5.7 (1.2)	5.9 (1.4)	5.4 (1.2)	5.4 (1.3)
Effective treatment approaches to common mental health problems	5.5 (1.4)	6.1 (.9)	5.5 (1.4)	5.4 (1.4)
Costs and business implications of mental health and illness	5.4 (1.4)	6.0 (1.1)	5.1 (1.3)	5.3 (1.4)
Management strategies to support and manage employees with depression	6.2 (.9)	6.3 (.9)	6.2 (1.0)	6.3 (1.0)
Role of leaders in promoting and supporting good mental health	6.1 (1.1)	6.3 (1.0)	6.1 (1.1)	6.2 (1.0)
Impact of organisational culture/working conditions on mental health	6.0 (1.2)	6.4 (1.0)	6.0 (1.1)	6.3 (.9)
Strategies for managing your own mental health and building resilience	6.2 (1.1)	6.3 (1.2)	6.1 (1.0)	6.3 (1.0)
Types of evidence-based workplace mental health programs	5.5 (1.1)	6.3 (.9)	5.6 (1.2)	5.6 (1.3)
Relevant policies, procedures and legal obligations	6.0 (1.0)	6.2 (1.0)	5.6 (1.3)	5.5 (1.4)

Table 13. *Leaders' Ratings of their Confidence Related to Specific Knowledge and Skills for Managing Workplace Mental Health Split by Education Level*

	Secondary School (n=30)	Vocational Training (n=16)	Tertiary (n=217)	Post Graduate (n=116)
Risk and protective factors	3.8 (1.6)	4.1 (1.8)	4.0 (1.5)	4.2 (1.6)
Common signs and symptoms of mental health	4.0 (1.6)	4.2 (1.8)	4.4 (1.5)	4.6 (1.7)
Types of mental health problems	3.8 (1.7)	3.8 (1.8)	3.9 (1.6)	4.2 (1.8)
Effective treatment approaches to common mental health problems	3.6 (1.4)	3.6 (2.0)	3.6 (1.5)	3.9 (1.8)
Costs and business implications of mental health and illness	3.4 (1.9)	3.5 (2.0)	3.7 (1.6)	4.1 (1.5)
Management strategies to support and manage employees with depression	3.7 (1.7)	3.5 (2.0)	3.8 (1.6)	4.1 (1.7)
Role of leaders in promoting and supporting good mental health	4.2 (1.6)	3.9 (2.2)	4.3 (1.6)	4.4 (1.7)
Impact of organisational culture/working conditions on mental health	4/2 (1.8)	4.0 (1.8)	4.3 (1.6)	4.6 (1.7)
Strategies for managing your own mental health and building resilience	4.4 (1.8)	4.3 (2.2)	4.6 (1.6)	4.7 (1.6)
Types of evidence-based workplace mental health programs	3.0 (1.9)	3.2 (2.1)	3.4 (1.5)	3.4 (1.5)
Relevant policies, procedures and legal obligations	2.9 (1.8)	3.8 (2.3)	3.6 (1.7)	3.8 (1.7)

In addition, 12 themes were identified for HR and L & D professionals when asked about their perceptions of the role of leaders in relation to workplace mental health. These were: (i) providing general support, (ii) creating and promoting a healthy workplace culture and environment, (iii) having knowledge and skills to identify and respond, (iv) raising awareness of mental health issues, (v) modelling resilience and self-care behaviours, (vi) proactive response to mental health needs and visible support, (vii) educating staff regarding mental health and available support services, (viii) ensuring policies and procedures are in place to support mental health needs, (ix) referring to and supporting access to treatment services, (x) facilitating open discussion about mental health and reducing stigma, (xi) providing training and education to staff regarding mental health and (xii) offering flexible work conditions. The following examples illustrate several of these themes:

Providing general support. "*To provide support and guidance to the manager's who have an employee suffering from mental illness*" (HR and L & D professional, female, 41-50 years, private sector).

Creating and promoting a health workplace culture and environment. "*Development of a culture that is supportive of staff and provides a safe environment and support mechanisms for dealing effectively with mental health issues*" (HR and L & D professional, female, 51-60 years, public sector).

Having the knowledge and skills to identity and respond. "*Identifying issues early on instead of labelling person as problem performer, knowing how to approach and assist in the issue and recommend EAP, liaison with HR and EAP early on,*

understanding role in terms of accommodating person with mental health issues and how far it goes" (HR and L & D professional, female, 41-50 years, public sector).

Raising awareness of mental health issues. "*Build awareness, act on signs being shown, provide resources, understand and promote treatment plans*" (HR and L & D professional, male, 51-60 years, public sector).

Preferred elements in an online program. As outlined in Table 14, both leaders and HR and L & D professionals indicated the same preferences for elements to be included in an online learning program for leaders on workplace mental health, with ratings on information elements (case studies, video clips of real leaders discussing their experiences, links to relevant resources and downloadable summaries of key points) on average higher than for the interactive elements (discussion questions).

Table 14. *Preferred Elements in the Design of an Online Learning Program*

Elements	Leaders (%)	HR and L & D Professionals (%)
Information elements		
Case studies	83	83
Videos clips of real leaders	81	84
Links to relevant resources	77	82
Downloadable summaries of key points	65	66
Articles and research papers	53	54
Pre-reading	40	32
Slide shows	37	35
Interactive elements		
Discussion questions	65	65
Email support	55	55
Discussion forums	47	49
Quizzes	29	37
Other	10	13

Survey respondents were also asked to list any other elements they would like to see incorporated. Thirty-two leaders responded to this questions and these responses were sorted according to six theme: (i) practical strategies for responding to mental health crises in the workplace (*n* = 6), (ii) online access to support (for example, chat rooms, experts, support groups) (*n* = 5), (iii) access to personal stories about depression (*n* = 4), (iv) access to online programs and workshops (*n* = 3), (v) useful contact information (*n* = 3) and (vi) information to increase knowledge about mental illness (*n* = 2).

In contrast, HR and L & D professionals who responded provided a wider set of suggestions with 12 themes identified: (i) inclusion of interactive components (for example, discussion forums and online support) (*n* = 6), (ii) access to a range of materials on workplace mental health (*n* = 6), (iii) in-house (rather than online)

training and support (*n* = 5), (iv) information to increase knowledge and understanding (*n* = 5), (v) information about personal experiences with depression in the workplace and how it is managed (*n* = 4), (vi) practical strategies for responding to workplace mental health issues (*n* = 3), (vii) examples of workplace programs (*n* = 3), (viii) mental health professionals actively involved with content and online support (*n* = 3), (ix) information about business impact (for example, legal issues and costs) (*n* = 2), (x) section for employees to disclose information about workplace experience with depression (*n* = 2), (xi) appropriate language used in content (for example, minimising jargon) (*n* = 1) and (xii) follow-up on training (*n* = 1).

Discussion of Results and Implications for the Design of the Online Program

The aim of this training needs analysis was to identify the training needs of organisational leaders in relation to depression in the workplace, via a Training Needs Analysis method (TNA). As there was a lack of previous research in this field, the study was exploratory in nature. The results indicated four broad areas that need to be considered in the design of the online program. These are: the experience and confidence of organisational leaders in relation to depression in the workplace, the gaps in knowledge and skills of organisational leaders, the role of leaders in managing mental health at work and the preferred elements of an online program for organisational leaders.

Experiences and confidence of organisational leaders in relation to depression in the workplace. Experience with depression, either through personal experience or in the workplace context, was very common in the study sample. The majority of organisational leaders and HR and L & D professionals who responded to the survey had a personal experience of depression (65 percent and 70 percent, respectively). This is not surprising given the non-random sampling method chosen

for this study (this is discussed in more detail in the next section). In addition, a high proportion (68 percent) of organisational leaders had worked with or managed someone with depression. These results highlight the importance of addressing this issue at work. The finding challenges The Shaw Trust (2006) survey findings highlighted in Chapter 2, which indicated that half of employers surveyed thought that none of their employees would experience a mental health problem in their lifetime.

Organisational leaders reported a high level of confidence to effectively support the management of someone at work with depression, with 63 percent reporting at least some confidence. Interestingly, HR and L & D professionals indicated less confidence that their leadership team knew how to support the management of an employee with depression, with only 39 percent reporting some level of confidence.

One rationale for including data gathered from HR and L & D professionals about organisational leaders was to ensure that there was another source of data related to the learning needs of leaders in this field, thus attempting to control for what is called the ‘self-serving bias’ (Spector, 2006). This refers to people's tendency to attribute positive outcomes to personal factors, but attribute negative outcomes to external factors. As stated earlier in this chapter, it could be argued that HR and L & D professionals would have less incentive to inflate the reported skills and confidence in this field of leaders, than leaders themselves would.

This tendency for leaders to inflate their skills is consistent with that found by Thorp and Chenier (2011). In their study, managers reported being very confident that they are effective at managing mental health issues at work, with 81 percent saying that they would feel comfortable having a discussion with a staff member about their mental health. However, this was in contrast to the views of employees, with only 26 percent agreeing that their manager is effective at managing mental health issues.

The high level of confidence reported by organisational leaders in the current study was examined further by splitting the data by a range of personal characteristics. This analysis revealed that female leaders, those with a previous diagnosis of depression and those from the NFP/community sector are more confident to support the management of an employee with depression than male leaders, those without a previous diagnosis and those working in the private and public sectors. These findings support the hypotheses that ratings of confidence would be lower for male leaders, those in the private sector and those with a previous diagnosis of depression. These findings show a similar pattern found in the depression stigma literature (Angermeyer & Dietrich, 2006; K. Griffiths et al., 2008; A. Martin, 2010) that suggest higher levels of depression stigma are found in men, those with no personal experience of depression and managers working in the private sector.

These results have important implications for the design of the online program for leaders. For example, it is critical that the content of the program includes several case studies and examples of leaders who are male and from the private and public sectors (that is, those who have been shown previously to have higher levels of stigma and lower confidence). These case examples can be used to 'role model' the skills and knowledge required to effectively support the management of someone with depression. As discussed in Chapter 4, people look to role models to guide their own behaviour in the workplace (Mayer et al., 2009). This can be utilised in the modelling of appropriate behaviours throughout the content of the online program. This approach is further supported by the evidence that stigma reduction interventions which involve contact (that is, people talking about their own experiences of depression) yield better results if the person speaks to the audience as a peer (for example, leader to leader), and is in a respected position in the community (Corrigan

et al., 2010). In addition, this approach is consistent with the affective intervention level proposed in the Unitary Theory of Stigma (Haghighat, 2001) outlined in Chapter 3.

Despite the large number of leaders having been exposed to depression in the workplace, only a small number (14 percent) reported participating in a specific training program on this topic. The most common programs were Mental Health First Aid and beyondblue training. Leaders reported that the most useful part of this training was the information about identifying mental illnesses, information about services and resources and workplace strategies for responding to mental illness at work. This finding is broadly consistent with that from Thorpe and Chenier's (2011) Canadian survey, in which it was identified that only 17 percent of managers had received training on how to have a difficult conversation with an employee about their mental health and only 18 percent had received training on how to recognise mental health issues at work. The low number of leaders who have participated in specific training on mental health at work further suggests that their stated confidence in their ability to support the management of depression at work may be overstated.

Overall, the above results indicated that leaders are already experienced at dealing with depression in the workplace and they rated their own confidence to deal with these issues as high (although this is in contrast to the results from HR and L & D professionals). However, they have not been exposed to formal training in workplace mental health and, therefore, may not have the required skills to effectively support the management of an employee with depression to create and promote a workplace culture that actively supports employees with depression. This highlights the significant extent of the overall training need for organisational leaders in relation to workplace mental health.

Gaps in knowledge and skills of organisational leaders. The skills and knowledge in relation to workplace mental health of organisational leaders (as rated by leaders themselves and HR and L & D professionals) were assessed across eleven areas. Both leaders and HR and L & D professionals rated all skills and knowledge as important (with the lowest average rating of 5.3, on a scale of 1-7). This is an important finding when considering the design of the content of the online program. All identified areas should be reflected in the content of the program.

Consistent with previous findings described above, there was a different response pattern for leaders with particular personal characteristics. Ratings of importance and confidence against all skill and knowledge areas were higher for female leaders, those with a previous diagnosis of depression and those from the NFP/community sector. Again, this highlights the importance of ensuring that case studies and video clips included in the online program reflect gender, mental health status and sector diversity. This will ensure that the material presented in the online program reflects the characteristics of those who are likely to gain the most from the content.

As the purpose of this training needs analysis and the TNA method was to identify training needs of organisational leaders, it is most relevant to examine the skills/knowledge areas that were rated lowest on the ‘confidence’ scale. These results can then be contrasted with the highest ‘importance’ ratings to highlight any clear gaps that may be present. An analysis of the gaps is needed to guide the weighting of content in the online program.

Analysis of the difference scores between rated importance and confidence on each of the skills/knowledge areas, as outlined in Table 5, demonstrated clear consistency in the responses of organisational leaders and those of HR and L & D

professionals, with both groups demonstrating the biggest gap between levels of importance and rated confidence in the following areas: ‘common signs and symptoms of mental health problems’, ‘management strategies to support and manage employees with depression’, ‘the role of leaders in promoting and supporting good mental health’, the ‘impact of organisational culture/working conditions on mental health’ and ‘types of evidence-based workplace mental health programs’. In addition, leaders indicated gaps with ‘effective treatment approaches to common mental health problems’ and ‘relevant policies, procedures and legal obligations’. As online training programs for senior leaders need to take time commitments into account to maximise the likelihood of engagement with the program, these identified gaps will assist with the prioritisation and weighting of specific content areas in the online workplace mental health program. These gaps are consistent with many themes highlighted in the review of the stigma literature outlined in Chapter 3. For example, the cognitive element of stigma and mental health literacy will be targeted in the provision of information about common signs and symptoms and effective treatment approaches. The behavioural component of stigma will be targeted, in part, through information about policies, practices and legal obligations towards an employee with depression.

It is also worth noting that many of the learning needs of organisational leaders identified above were consistent with Canadian managers’ training needs identified by Thorpe and Chenier (2011). For example, managers identified the following training needs: recognising the signs and symptoms of mental health problems, strategies to keep employees in the workplace, how to respond to employees with mental health problems, legal requirements of managers and creating a supportive and inclusive work environment.

Role of organisational leaders in managing mental health at work. In this training needs analysis both leaders and HR and L & D professionals identified the role of leaders in managing mental health at work as being: providing support, promoting a healthy work culture, raising awareness and having the knowledge and skills to identify and respond to mental health issues. This identified role is broadly consistent with the literature (Dellve et al., 2007; Giberson et al., 2009; Goldberg & Steury, 2001; Hambrick & Mason, 1984; Secker & Membrey, 2003). It will be important to reinforce this leadership role in the content of the online program. This is particularly highlighted when the results above are taken together with the 'gap analysis' presented in the previous section. This indicates that both leaders and HR and L & D professionals have identified two of the most important learning needs of leaders as being acquiring knowledge about 'management strategies to better support and manage employees with depression' and the 'role of leaders to create a mentally healthy work culture'. As discussed in Chapter 3, this latter learning need is aligned to the economic and evolutionary levels of stigma reduction interventions in the Unitary Theory of Stigma. Haghighat (2001) argues that stigma is higher in environments that are competitive. It will, therefore, be important that any discussion in the program about 'creating a mentally healthy culture at work' promotes a collaborative and supportive workplace environment and highlights the link between excessively competitive work cultures and higher rates of stigma (and the resulting costs to the organisation).

Preferred elements of the online program for leaders. There was a high degree of consistency between organisational leaders and HR and L & D professionals in their rated preference for various elements of a possible online program. Preferences included downloadable summaries of content, video clips of

real leaders, discussion questions, case studies, and links to relevant resources. In addition, leaders said they wanted practical strategies for responding to mental health crises at work and online access to experts. HR and L & D professionals also indicated a preference for discussion forums and materials.

As outlined in Chapter 5, the design of training programs has been found to influence the training transfer of skills back into the workplace (Blume et al., 2010; Cheng & Hampson, 2008; Hutchins, 2009). This research indicated several important principles that should guide the design of training programs, including ensuring: that content reflects the 'real world' work environment, that the principles and approaches presented in the training program are grounded in real world examples and that the same concepts and information are presented to the learner in a variety of different ways (Baldwin & Ford, 1988). In addition, previous research (for example, Angermeyer & Dietrich, 2006; Hand & Tryssenaar, 2006; Wolkenstein & Meyer, 2009) has highlighted the importance of exposing people to real case studies as a method of reducing depression stigma.

These results, taken together with the preferences expressed by participants in the pilot survey, the 'gap analysis' outlined earlier and the stigma research reviewed in Chapter 3, provide clear guidance for the design of the online program. For example, the program should include: the same information presented through written materials, video and audio case studies, advice about practical strategies for leaders included in downloadable summaries, links and resources and it should feature real leaders talking about their own experiences and the advice they would give other organisational leaders in dealing with mental health in the workplace. The inclusion of information designed to challenge commonly held beliefs about depression, its treatment and people who experience it, will provide participants with an alternative

explanatory model and is designed to assist in the reduction of stigma (Haghighat, 2001). This is consistent with the cognitive level outlined in the Unitary Theory of Stigma and will address low levels of mental health literacy associated with high levels of stigma (K. Griffiths et al., 2008). In line with Haghighat's (2001) argument, this will be paired with the affective level, for example, an opportunity for participants to experience an emotional reaction to the material. In the current program, this will be achieved through the inclusion of video clips of leaders talking about their own experiences of depression. Figure 9 provides an overview of how the three components of stigma will be addressed in the design of the current online program.

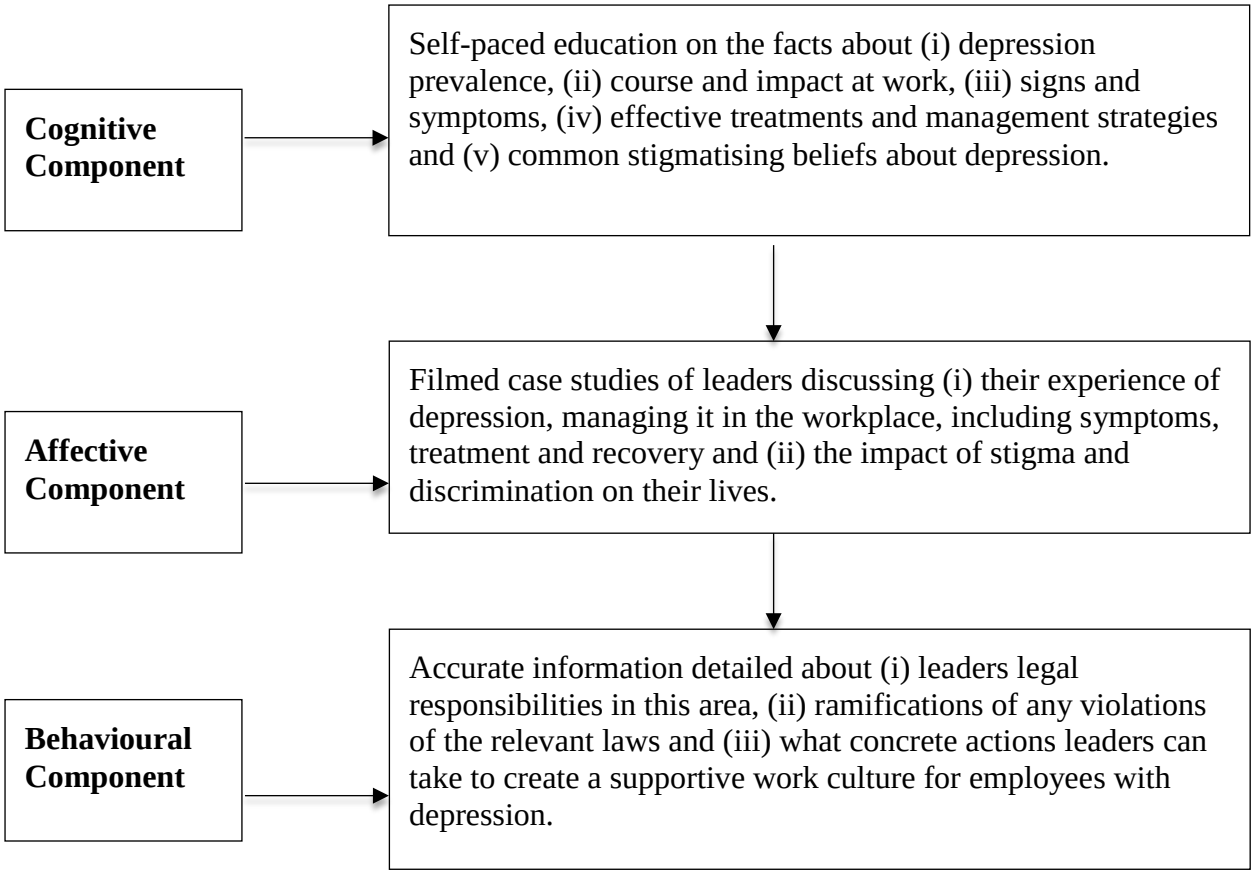

Figure 7. How different components of stigma will be addressed in the current study.

Finally, the content of the material in the online program should reflect the dimensions of depression-related stigma as outlined by Jones et al. (1984), for example, by including the following: challenges to the attribute of *blame* (that is, that people with depression are not responsible for becoming depressed) and counter the need for social distance and fears of working with someone who is depressed, by providing information about what to say to someone at work who might be depressed and how to support them (this will reduce the dimension of *repellence*).

Methodological Limitations of the Training Needs Analysis

There are several important methodological issues that were considered as part of the design of this training needs analysis. The first relates to sampling bias and, therefore, the generalisability of results. A non-random (convenience) sample was chosen for this study, therefore, there is a possibility that individual judgement affected people's decision to participate or not, making some members of the target population (organisational leaders and HR and L & D professionals) more likely to self-select than others (Bryman & Bell, 2007). As detailed in the previous section, a high number of respondents reported diagnosis of depression (38 percent and 48 percent of organisational leaders and HR and L & D professionals, respectively). Given that the lifetime prevalence of depression in Australia is 15 percent (Slade et al., 2009), a response bias is evident in the current sample towards people who have a personal experience of depression. This may have contributed to the sample being more knowledgeable about this topic and potentially more motivated to participate in the study compared to leaders without a personal experience of depression. The results can be compared to those obtained by Martin (2010), who had 21 percent of her sample of managers report a diagnosis of depression. In addition, Kitchener and Jorm (2004) found that 60 percent of their sample of public service employees had experienced a mental health problem.

A convenience sample was utilised for this study. While this approach to sampling may have limited the generalisability of the findings, the use of a convenience sample can be justified when using it to gather data as part of a pilot study or as a "spring board for further research" (Bryman & Bell, 2007, p. 198). The sampling strategy used in this study was designed to access a broad sample of leaders and HR and L & D professionals from a range of organisations and sectors across

Australia. The key advantage of the snowball sampling method is that it is a convenient method of collecting survey data when a random sample cannot be accessed. Given this, the key disadvantage is that the sample is unlikely to be representative (Bryman & Bell, 2007).

An additional methodological limitation of this training needs analysis relates to the measures used. As no existing measures related to identifying the training needs of organisational leaders in this field could be sourced, the measure used in this training needs analysis was developed by the researcher. Therefore, the content validity and reliability of these measures is unknown.

In order to minimise the impact of the above methodological limitations, particular attention was taken in the design of the survey based on well-established methods for avoiding common method variance (Bryman & Bell, 2007; Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). These included ensuring that the questions designed were closely aligned to the purpose of the training needs analysis, avoiding ambiguous or unfamiliar terms and using a variety of scale end-points and formats.

The final methodological issue considered in the design of this training needs analysis related to self-report surveys. A self-report survey was a suitable method for collecting the type of data required for the TNA task, particularly because the same information couldn't be obtained from other sources. These are a low-cost data collection method and can provide broad accessibility to a relatively large number of respondents across a wide geographic area (Bryman & Bell, 2007). This method can also avoid any bias associated with an interviewer and assure anonymity to respondents. Further, Spector (2006) has argued that it is difficult to obtain accurate information about people's internal states with any method other than self-reported data.

It is possible, however, that given the nature of the survey topic (that is, workplace mental health) social desirability may have affected responses. The social desirability effect refers to "the tendency on the part of individuals to present themselves in a favourable light, regardless of their true feelings about an issue or topic" (Podsakoff et al., 2003, p. 881). An answer that is perceived as being socially desirable is more likely to be endorsed than one that is not. As depression and other mental illnesses remain highly stigmatised in Australia (Barney et al., 2009), it is possible that people who held negative views about people with mental illness provided responses reflecting attitudes believed to be socially desirable rather than reflecting their true views. For example, some respondents may have been more likely to rate the skills/knowledge relating to managing mental illness at work as more important than they truly believe they are due to perceived social desirability. An alternative possibility is that potential respondents self-selected out of the study as they did not think that the topic was important. This may mean that the results from the training needs analysis reflect people who already recognise the importance of this as an issue for organisational leaders and this may have compromised the generalisability of results. One method that can assist to reduce the impact of social desirability is to ensure that survey responses are anonymous and communicate this to respondents (Podsakoff et al., 2003). In the current training needs analysis, respondents were assured at three separate points (email invitation, information sheet and on the first page of the survey) that their responses were anonymous.

The possible impact of the three methodological limitations of the training needs analysis outlined above should be considered when interpreting results. However, where possible, steps were taken in the design of the study to minimise this impact. Overall, the method chosen for this study was considered the most appropriate

way of identifying the training needs of organisational leaders in relation to managing mental health in the workplace.

Conclusion

This training needs analysis was designed to explore the training needs of organisational leaders in relation to managing depression in the workplace. An additional aim was to explore the relationship between various personal characteristics of leaders and their rated confidence to support the effective management of an employee with depression. Analysis of the training needs analysis results revealed four broad areas that inform our understanding the learning needs of organisational leaders in this field and which will shape the design of the online depression awareness and stigma reduction program. These areas are: the experience and confidence of leaders in relation to depression in the workplace, the gaps in knowledge and skills of leaders, leadership roles in managing mental health at work and the preferred elements of an online program for leaders.

The results of this exploratory training needs analysis were used by beyondblue to inform the development of the online workplace mental health program. Several key methodological limitations were identified and discussed. The next chapter will draw together the conclusions from the literature review into a series of hypotheses and research questions that will be investigated and explored and provide an overview of the mixed methods research design of the evaluation study.

Chapter 7: Development of Hypotheses and Research Questions and Overview of Evaluation Design

Introduction

Chapters 2 through 5 presented a rationale for new approaches to address the burden, cost and impact of untreated depression in the workplace. This is an issue too costly for organisations to ignore; the negative consequences are felt by individuals, families, colleagues, employers and society as a whole. In Chapter 3 it was argued that despite effective treatments being available, many people with depression do not seek help. Major barriers in the workplace are stigma and low mental health literacy. The research examining the conceptualisation and predictors of stigma were detailed and the Unitary Theory of Stigmatisation (Haghighat, 2001) was presented as an explanation of stigma. It was argued that the impact and costs of depression could be minimised by an improvement in mental health literacy and reduction of stigma in the workplace. Chapter 3 also summarised the evidence on stigma reduction strategies and discussed the implications of this on the design of the online program in the current research.

In Chapter 4 the lack of workplace mental health programs and practices that target organisational leadership groups were explored. Most programs target line managers or the individual with depression, leaving relevant skills and knowledge precariously resting with individual employees rather than being built into the culture of the organisation. This may lead to any workplace changes or learning being unsustainable. It was argued that this is an issue that must be considered from the top of the organisation, as it is leaders who model appropriate attitudes and behaviour and

shape the organisation's culture. In addition, the longer-term impacts of programs are rarely measured.

Chapter 5 presented several approaches and models used in the workplace training field to evaluate the effectiveness of training and the transfer of learning back into the workplace. It argued that a more sophisticated approach to training evaluation is required for programs utilising technology as the delivery platform. The evaluation study will address a number of the key limitations and gaps of previous research outlined previously and attempt to provide support for the theoretical underpinnings of the stigmatisation process outlined in Chapter 3. The specific research aims, hypotheses, research questions and research design are outlined below.

Aims of the Current Research

The aim of the current research was to investigate whether a sustained change to the attitudes, and underlying stigma, of organisational leaders in relation to managing depression in the workplace could be achieved as a result of the completion of an online workplace mental health program. An additional aim was to show that change in attitudes and stigma led to behavioural change, that is, that the learning has been transferred from the online training environment to the workplace.

Hypotheses and Research Questions

Despite there being an absence of research evidence on the impact of mental health literacy and stigma specifically in organisational leaders, the literature reviewed in Chapters 2, 3, 4 and 5 was used to develop several hypotheses and research questions for the evaluation study (these are summarised in Table 15). Hypotheses regarding personal characteristics as predictors of stigma will be detailed. Then the hypotheses about the effectiveness of the program and predicted changes to

depression-related stigma and mental health literacy, including the mediators of these effects, will be discussed. Finally, this chapter concludes with an overview of the research questions designed to explore the characteristics and factors impacting on leaders' ability to implement the learning from the program back into the workplace, through the implementation of action plans.

Personal characteristics as predictors of stigma. Identification of the personal characteristics correlated with depression stigma has been the subject of prior research, with several characteristics identified as being associated with higher rates of depression stigma. These include: being male (K. Griffiths et al., 2008; A. Martin, 2010), of older age (Angermeyer & Dietrich, 2006), having lower levels of education (Angermeyer & Dietrich, 2006; K. Griffiths et al., 2008; A. Martin, 2010), working in the private sector (Martin, 2010) and having no previous diagnosis of depression or contact with someone with depression (Angermeyer & Dietrich, 2006; Couture & Penn, 2006; A. Martin, 2010). It was predicted that a similar pattern of findings would be found in the current research. Accordingly, the following hypotheses were advanced:

Hypothesis 1a: At baseline, male organisational leaders would have higher levels of stigma than female leaders.

Hypothesis 1b: At baseline, older organisational leaders would have higher levels of stigma than younger leaders.

Hypothesis 1c: At baseline, organisational leaders without a tertiary education would report higher levels of stigma than those with a tertiary education.

Hypothesis 1d: At baseline, organisational leaders working in the private sector would report higher levels of stigma than those working in other sectors.

Hypothesis 1e: At baseline, organisational leaders who have not experienced depression would report higher levels of stigma than those who have experienced depression.

Effectiveness of the online program to reduce stigma and improve mental health literacy. High levels of stigma and poor mental health literacy have been shown to impact on willingness to seek professional help for depression (McNair et al., 2002; Thompson et al., 2004; Whiteford & Groves, 2009). It has been suggested that they are also barriers for organisations adopting mental health programs (Cleary et al., 2008). The link between mental health literacy and stigma is well-established with lower levels of knowledge about depression being associated with higher levels of depression-related stigma (Finkelstein & Lapshin, 2006; K. Griffiths et al., 2008; J. Wang et al., 2007).

Studies evaluating the effectiveness of stigma reduction strategies consistently support two approaches (Corrigan et al., 2012): first, providing information and education about mental illness and its treatment, which addresses the cognitive element of stigma and improves mental health literacy and, second, facilitating contact with someone with a mental illness (either in person or via video), which addresses the affective element of stigma (Haghighat, 2001). Further, there is evidence to support a causal attribution model which asserts that discriminatory behaviour (that is, the behavioural component of stigma) is determined by a cognitive-affective process (Angermeyer et al., 2004; Corrigan et al., 2003). Therefore, several different stigma reduction strategies were incorporated into the

online program and their impact on the different components of stigma, including the desire for social distance and emotional responses to someone with depression, were evaluated.

This leads to the development of the following hypotheses:

Hypothesis 2: Organisational leaders who complete the online program (experimental group) would report a greater reduction in stigma, and in each of the cognitive, affective and behavioural components of stigma, than those in the wait-list control.

Hypothesis 3: Organisational leaders who complete the online program (experimental group) would report a greater increase in knowledge about depression, than those in the wait-list control.

Hypothesis 4: Organisational leaders who complete the online program (experimental group) would report a greater reduction in social distance towards someone with depression, than those in the wait-list control.

In addition, little research has been conducted to assess the longer-term impacts of both face-to-face and online workplace stigma reduction programs and their potential for sustained behavioural change. The measurement of longer-term impacts and sustained behavioural change will be a key component of the evaluation methodology in the current study. Therefore, this leads to the following hypotheses:

Hypothesis 5: Any reduction in stigma (affective, cognitive, behavioural and total stigma) observed for the experimental group at post-test would be sustained at six months follow-up.

Application of learning and the demonstration of training transfer and behaviour change. As outlined above, a range of personal characteristics have been shown to predict levels of stigma. The impact of these characteristics, and levels of stigma and mental health literacy on the leaders' implementation of their action plans, will be explored in the current research.

As outlined in Chapter 5, one of the most influential individual learner characteristics in the training transfer process is attitudes towards the training content (in the current context this is attitudes and behaviour towards employees with depression) and their pre-training motivation to participate and learn from the program (Cheng & Hampson, 2008). Blume et al. (2010) have argued that this is particularly important for training programs that teach learning principles (such as in the case of the current research) as opposed to skills that are intended to be produced identically back in the workplace. In the current research, the levels of pre-training motivation will be explored in relation to the implementation of action plans back in the work environment. In addition, the results of a meta-analysis of training evaluation approaches (Alliger et al., 1997) indicated that perceived relevance of training content to work role was positively correlated with training transfer.

The design and usability of workplace training programs has been associated with training transfer (Hutchins, 2009). In addition, as outlined in Chapter 5, Brinkerhoff and Apking (2001) argue that the most significant risk to poor utilisation of workplace e-learning programs is poor design. Good design ensures that the program is easy to use, interesting and engaging (Horton, 2006). The impact of the program usability on implementation of action plans was explored in the current research.

Several contextual organisational factors have been identified in the literature (see Chapter 5) examining training transfer. Brinkerhoff and Montesino (1995) have argued that training transfer is limited when learners do not have the opportunity to apply new learning in their workplace. In addition, Cheng and Hampson (2008) have asserted that additional factors, such as manager support and 'transfer climate' can have a significant impact on the success, or otherwise, of workplace training initiatives. And finally, research conducted by Martin (2010) suggested that the presence of an organisational mental health strategy and depression disclosure norms impact on levels of stigma in the workplace. This, in turn, is likely to influence the implementation of learning from workplace training.

Taking the above findings together, the following research question was proposed:

Research Question 1: What individual characteristics are associated with organisational leaders being more likely to apply learning form the online program (that is, demonstrate training transfer and behaviour change)? Variables to be considered are depression knowledge, stigma levels, gender, age, education level, sector, personal experience of depression, pre-training motivation, organisational mental health strategy, disclosure norms, manager support for implementation and for workplace mental health, relevance of content of the program and usability of program.

Brinkerhoff (2006) proposed the SCM as a evaluation tool for the identification and explanation of the contextual organisational factors that differentiate successful from less successful adopters of new workplace initiatives. This method was utilised

in the current research to identify the contextual factors associated with the most successful and less successful cases, leading to the following research questions:

Research Question 2: How did the organisational leaders apply the learning from the online program and what results did this application produce?

Research Question 3: What are the contextual factors that impact on successful and unsuccessful implementation of action plans and/or application of the learning from the online program?

Table 15. *Proposed Hypotheses and Research Questions Tested and Explored in the Evaluation Study*

No.	Hypothesis and Research Questions
H1a	At baseline, male organisational leaders would have higher levels of stigma than female leaders.
H1b	At baseline, older organisational leaders would have higher levels of stigma than younger leaders.
H1c	At baseline, organisational leaders without a tertiary education would have higher levels of stigma than those with a tertiary education.
H1d	At baseline, organisational leaders working in the private sector would have higher levels of stigma than those working in other sectors.
H1e	At baseline, organisational leaders who have not experienced depression would have higher levels of stigma than those who have experienced depression.
H2	Organisational leaders who complete the online program (experimental group) would report a greater reduction in stigma, and in each of the cognitive, affective and behavioural components of stigma, than those in the wait-list control.
H3	Organisational leaders who complete the online program (experimental group) would report a greater increase in knowledge about depression, than those in the wait-list control.
H4	Organisational leaders who complete the online program (experimental group) would report a greater reduction in social distance towards someone with depression, than those in the wait-list control.
H5	Any reduction in stigma (affective, cognitive, behavioural and total stigma) observed for the experimental group at post-test would be sustained at six months follow-up.
RQ1	What are the individual characteristics associated with organisational leaders being more likely to apply learning from the online program (that is, demonstrate training transfer and behaviour change)?
RQ2	How did the organisational leaders apply the learning from the online program and what results did this application produce?
RQ3	What are the contextual factors that impact on successful and unsuccessful implementation of action plans and/or application of the learning from the online program?

Overview of the Mixed Methods Evaluation Design Used in the Current Study to Evaluate the Impact of the Online Program

As outlined previously, there is a lack of previous published research demonstrating the effectiveness of online workplace mental health programs for leaders. Research examining the impact of mental health programs, more broadly, has been characterised by quantitative data being collected at two or more time points, before and after completion of the program, often without a control group (beyondblue, 2007; Kitchener & Jorm, 2004; Millear et al., 2008). For example, Finkelstein and Lapshin (2006) adopted this approach in their evaluation of an online mental health program. As discussed earlier, approaches such as this have significant limitations. For example, it is unclear whether any observed changes were sustained over time. There was also no exploration of factors that influenced the observed change and successful uptake, thus limiting large-scale implementation. In addition, the lack of a control group means that it is difficult to confidently claim that observed changes were due to the intervention being studied, rather than due to factors such as social desirability. Szeto and Dobson (2010) are critical of commonly used evaluation approaches, stating that measures of behaviour change and an assessment of organisational and contextual factors impacting on learning and implementation need to be included in evaluations. The research method in the evaluation study has been designed to address these limitations and criticisms.

Mixed methods approaches involve the mixing of qualitative and quantitative designs in the same research study (Bryman & Bell, 2007). Increasing in popularity, this approach has been referred to as the ‘third methodological movement’ (R. Cameron, 2011; Leech & Onwuegbuzie, 2009; Onwuegbuzie, Johnson, & Collins,

2009). Mixed methods designs are now supported by a growing body of trans-disciplinary literature, prominent research advocates, the emergence of mixed methods specific journals, research texts, and courses and a growth in popularity amongst research funding bodies (R. Cameron, 2011). Further, it has been argued that a complex, multi-disciplinary topic such as workplace mental health research requires a mixed methods approach (Di Ruggiero & Sharman, 2011). The major benefit of a mixed methods approach is that it capitalises on the strengths and diminishes the weaknesses of both qualitative and quantitative approaches (Andrew & Halcomb, 2007). It can provide a more comprehensive understanding of the research problem or phenomenon being studied than either approach could alone (R. Cameron, 2011).

Leech and Onwuegbuzie (2009) have developed a typology of mixed method designs based on three dimensions: level of mixing (partially mixed versus fully mixed), time orientation (concurrent versus sequential) and emphasis of approach (equal status versus dominant status). The evaluation study was conducted in two phases. First, quantitative data was collected using online self-administered surveys and qualitative data was collected via semi-structured phone interviews. Data was collected sequentially and the quantitative phase had greater emphasis in the design. Accordingly, it can be classified as a partially mixed sequential dominant status design. This design is commonly denoted as 'QUANT→qual', and has been utilised by other researchers in evaluation studies, outside of the workplace mental health field, for example (Clarke, 2002; Kong & Lee, 2004).

Three key challenges of applying a mixed methods approach have been identified (Andrew & Halcomb, 2007; R. Cameron, 2009, 2011). First, mixed methods designs are usually more resource intensive (including time, money and personnel with strengths in both approaches). Second, it can be difficult to gain access

to tools and programs with which to store and arrange data to promote comparisons or integration of qualitative and quantitative data. Last, mixed methods studies can be difficult to get published, given word limits and the amount of data such studies present. Despite these challenges, the benefits of a mixed methods design to investigate a topic such as that in the evaluation study far outweigh the challenges. It is argued that the use of mixed methods will increase the interpretability, meaningfulness and validity of constructs being examined.

The mixed methods approach will be utilised in a number of ways in the evaluation study. The quantitative survey data will be used to inform and refine the semi-structured interview protocol. It will also be used to select the participants who will be interviewed, based on SCM (Brinkerhoff, 2002). Areas of overlap and uniqueness in relation to the factors that will influence training transfer will be explored through the use of both qualitative and quantitative data. This will assist in the description and application of the research findings. The qualitative and quantitative data will also be used to crosscheck and corroborate results, for example, the qualitative data may be used to validate the findings related to pre-training motivation. This is similar to the mixed methods approach that Schifferdecker and Reed (2009) called an ‘explanatory’ model, where results or questions arising from quantitative data are explored qualitatively, producing data that are used to complement or clarify the original findings.

Further to the mixed methods approach, three additional research design elements have been included in the evaluation study to increase its methodological rigor. First, an experimental design was utilised to collect the quantitative data with participants being randomly assigned to either a control group or an experimental group. This aims to increase internal validity (Bryman & Bell, 2007) and means that

any observed differences between the two groups can be more confidently attributed to the impact of the online program. This is particularly important for the evaluation study where data was collected in a 'real world' setting (that is, with time-poor leaders in the course of them doing their usual jobs). While this approach is critical to the ecological validity and usefulness of results (Myette, 2008), it means that a range of external factors (for example, an economic downturn) that are difficult to control could have impacted on the reports provided by leaders during the six months they were enrolled in the study. The inclusion of a control group enables any changes observed to be attributed to the intervention rather than to external factors. It should be noted, however, that participants were notified of which group they had been assigned to, that is, the study was 'unblinded'. While this was considered the most appropriate approach for this study, it does present some limitations that will be discussed in a later chapter.

The second design element that aimed to increase the methodological rigour of the evaluation study was the collection of data at three time points (pre, post and follow-up) over a six-month period. This allowed an assessment of whether the hypothesised benefits of the online program were sustained over time and whether changes in behaviour resulted from completion of the online program.

The final design element included to maximise methodological rigor was the choice of online surveys to collect the quantitative data. The use of online surveys has been argued to be particularly useful for gathering data on highly stigmatised topics, such as workplace mental health, as users can stay relatively anonymous and are therefore more likely to provide truthful answers (Billings et al., 2008; K. Griffiths et al., 2006). An additional benefit of online surveys is that compared with other types of surveys (for example, phone or face to face), is greatest accessibility to a relatively

large number of participants spread over the entire country (Bryman & Bell, 2007). It is also less resource intensive (both human and financial) and reflects the mode of the delivery for the program (that is, online).

Conclusion

This chapter detailed a summary of the background research that informed the development of the aims, hypotheses and research questions for the evaluation study. These are summarised in Table 15. It was argued that the choice of a mixed method research design represents a robust and valid approach to the evaluation study and maximise the usefulness of the results for both academics and practitioners beyond this study.

Chapter 8: Method and Results for the Quantitative Data

Introduction

The previous chapter drew together the conclusions of the literature review into a service of hypotheses and research questions for the evaluation study. It also provided an overview of the mixed methods design utilised in the evaluation study. This chapter provides an overview of the quantitative research methodology used in the current experimental study, including the characteristics of participants, the data collection procedures used and the measures chosen and adapted for the purposes of this study. A brief description of the beyondblue online program will also be provided. This chapter then presents the approach taken to the statistical analysis of the data collected at the pre, post and follow-up time points. The results of the quantitative data analysis are presented including the baseline analysis of personal characteristics associated with stigma, the main effects of the program, maintenance of the main effects and analyses of variables associated with the implementation of learning from the online program.

Method

Participants. Participants in the evaluation study were 311 organisational leaders (*N* = 163 females, *N* = 148 males). All participants were over the age of 18 years with the majority aged between 41-50 years old (41 percent). The vast majority (94 percent) of participants held tertiary qualifications. The majority of leaders in the sample worked in the private sector (53 percent) compared to 32 percent in the public sector and 15 percent in the not for profit sector. Just over half (54 percent) had experienced depression themselves at some point in their life, with 46 percent having no previous experience of depression.

Sampling methods. A snowball convenience sampling approach was used. The invitation to participate in the study was circulated electronically (see 'Procedures' section for detail on participant recruitment), and recipients were encouraged to forward the invitation to their professional networks. The total number of people who viewed the invitation is unknown, therefore, a total response rate cannot be estimated.

Procedure.

Usability testing of online program and surveys. In order to maximise participant engagement and data quality, a usability study was undertaken. This ensured that the survey questions were comprehensible and easy to complete, and the online program was easy to navigate and interact with. The aim was to encourage retention and maximum engagement with the material in the program (Bryman & Bell, 2007). See Appendix E for an outline of the results of the usability testing.

In addition to the feedback received about the online surveys, feedback was also received about the online program (developed by beyondblue). This feedback related to: issues with navigation through the program, an incorrect link to the post-survey and some issues with the usability of some aspects of the program. This feedback was

passed onto beyondblue who incorporated the suggested changes where possible. Surveys were administered online, through Moodle, a platform of Brightcookie Educational Technologies who were contracted by beyondblue. Ethical approval for the current research was obtained from the Human Research Ethics Committee (Tasmania) Network of the University of Tasmania (see Appendix F).

Participant recruitment. Participants were recruited via electronic mail-outs to various professional organisations' mailing lists, digital advertising, social media, personal networks and a small number of participants were recruited through a professional recruitment firm. See Table 16 for more information.

The link to the study homepage was circulated via the channels listed above. From the homepage, participants were directed to the information sheet about the study that explained the purpose of the study and informed participants that their participation would be voluntary and their responses would be confidential (see Appendix G for a copy). Informed consent to participant in the study was implied through participation. As can be seen by the diagram outlining the mixed methods approach in the evaluation study (see Figure 9), participants were then asked to register for the study online and to immediately complete the pre-survey online. A small number (n = 19) of people registered for the study but did not complete the pre-survey. All links to surveys and information about next steps were sent to participants via emails by the researcher. The control group were asked to confirm that they had not already completed the online program (as it was also publicly available through the beyondblue website). Participants in the experimental group were asked at the end of the survey if they agreed to be contacted by the researcher to participate in a short phone interview.

Table 16. *Overview of the Methods Used to Recruit Participants into the Evaluation Study*

Recruitment channel	Method	Number of people potentially reached
Digital advertising	A small digital ad was purchased with the Australian Financial Review	The ad was estimated to have been seen by 17,000 people
Member emails through various professional associations	These included Australia and New Zealand Institute of Insurance and Finance (ANZIIF), Australian Human Resources Institute (AHRI), beyondblue, Leadership Victoria, Australian Institute of Management (AIM) Tasmania and Victoria branch, UGM Consulting and DavidsonTrahaireCorpsych	Each of these organisations had several thousand people on their mailing lists
Website notice	Posted on the Women on Boards website	Approximately 16, 000 members
Sent via the researcher's professional network	LinkedIn	Over 500 contacts
beyondblue's social media channels	Facebook (162,000 'likes'), LinkedIn (1,000 'followers') and Twitter (16,000 'followers').	Over 150,000 people
Recruitment firm	These participants were paid to participate (approximately $80-150) and were all invited to donate this money back to beyondblue, which the majority did	Approximately 50

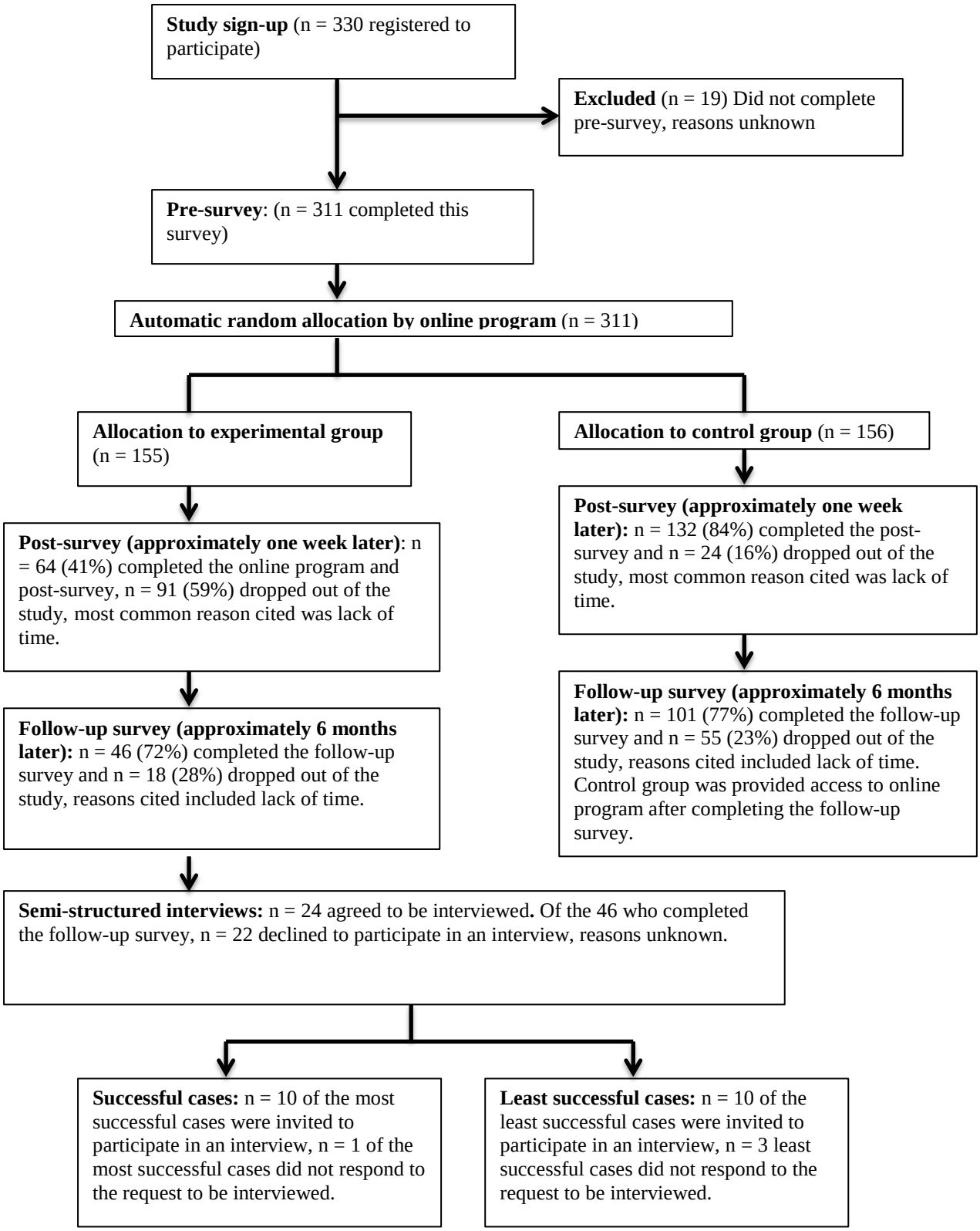

Figure 8. Retention and flow of participants through the mixed methods evaluation study.

To maximise the response rate across the three surveys a robust reminder protocol was employed. This included two reminder emails sent to participants who had failed to complete one of the surveys. These emails were sent one week apart. If participants still had not completed the survey, a reminder phone call was made. In the event of the call going unanswered, a voice mail message was left with the reminder and a final phone call was made one week later.

In total, 10 participants who had completed the pre-survey notified the researcher that they wished to withdraw from the study. The reason they all gave for this decision was having a lack of time to complete the remaining elements of the study. None of the participants who withdrew requested to have survey data already submitted withdrawn from the study dataset.

Content of the online program for leaders. The online program was designed and developed by beyondblue, utilising the results from the training needs analysis. The researcher provided preliminary advice, based on the training needs analysis results, but was not able to be directly involved in program design. The program aimed to provide leaders with information, tools and practical actions to create a mentally healthy workplace, reduce stigma and look after their own mental health. The program was divided into four sections (‘Depression in the workplace’, ‘Your workplace’, ‘Your place in the workplace’ and ‘Take action’). Information was presented in a variety of ways, including short segments of information to read, video clips of organisational leaders speaking about mental health in the workplace (including their own experiences), and interactive exercises where participants could calculate the cost of untreated depression in their workplace and the specific risk factors that exist in their organisation. It covered content areas, such as the ‘business case’ for action and the role of organisational leaders. At the end of the program,

participants were asked to complete an action plan (which was pre-populated with their responses to the cost calculator and organisational risk identifier). Summaries of the information in the program could also be downloaded, along with their completed action plan. See Appendix H for a selection of screen shots from, and the structure of, the online program. It took approximately 30-45 minutes for leaders to work their way through all the content in the program. In addition to the training needs analysis results discussed in Chapter 6, the program was developed with input from industry and employer associations, unions, other mental health sector bodies and organisations both large and small.

Measures. Previously established scales were used in the evaluation study where available. In some cases, scales were adapted for use to ensure the content of the scales was tailored to the content of the online program. For example, in the case of the measure of depression knowledge it was essential that the answers to the depression knowledge questions were contained in the content of the program. This approach to the selection of measures maximised content validity and comparability with previously published studies (by using existing scales where possible). It also ensured relevance to the content of the online program being evaluated and to the hypotheses and research questions being examined.

Surveys were conducted at three time points in this study: pre-survey, post-survey and follow-up. The experimental and control groups completed different surveys as post and follow-up (see Appendices I, J, K, L and M for full copies of the five surveys). Most questions were common across all surveys to maximise comparison of data at different time points (see Table 17 for summary).

Table 17. *Summary of Survey Questions Administered to the Experimental (E) and Control (C) Groups at the Three Data Collection Points*

Measure	Pre (T_1)	Post (T_2) - E	Post (T_2) - C	Follow-up (T_3) - E	Follow-up (T_3) - C
Demographics	X				
Personal experience	X				
Depression knowledge	X	X	X	X	X
Managerial stigma	X	X	X	X	X
Social distance	X	X	X	X	X
Mental health strategy	X			X	X
Depression disclosure norms	X			X	X
Pre-training motivation	X				
Reactions and usability		X			
Training transfer				X	

Demographics. Demographic characteristics of each participant were collected, including sex, age, educational attainment, and sector of work.

Personal and professional experiences. The questions relating to the personal and professional experiences of participants were those that were in the training needs analysis outlined in Chapter 6. The questions related to personal experience of depression were adapted from Martin (2010), and provided a simple measure of personal experience of depression: '*Have you ever experienced depression?*' and '*Have you ever been diagnosed with depression?*' Personal experience in dealing with a significant other's depression was also assessed: '*Has anyone in your family, or a close friend, ever experienced depression?*'

Depression knowledge. The depression knowledge questions included knowledge about the prevalence, causes, course, treatments and impacts on the workplace of depression. This construct was measured with ten items adapted from Highet, Luscombe, Davenport, Burns and Hickie (2006) and Pierce and Shann (2012). The adaptions were made to ensure that the questions were aligned to the content of the online program. For example, a question was included that related to depression and workplace productivity to align with the focus of the online program. Given the

online program was developed by beyondblue, it was appropriate to adapt measures that already reflected their key messages and preferred language, given they were also available in the published literature.

For each item participants were asked to indicate which response they thought was correct. The first two items related to the prevalence of depression and had four possible answers. For the remaining eight items (for example, '*There is always an identifiable cause of someone's depression*'), participants were asked to select either 'true' or 'false' for each. Each correct answer was assigned one point and incorrect answers were assigned a zero, with a maximum of 10 points possible. Points were summed to obtain a total depression knowledge score. This is the same approach to scoring depression knowledge questions as used by Griffiths et al. (2008).

Stigma. Stigma was measured using the twelve-item Managerial Stigma Scale developed by Martin (2010). This scale was selected for two key reasons. First, it measures the tri-component approach to understanding stigma (Ottati et al., 2005) outlined in Chapter 3. Affective stigma is measured with four items designed to assess participants' evaluations of the emotional aspects of relating to employees with depression. Cognitive stigma is measured with four items that assessed participants' beliefs about employees with depression. Behavioural stigma is measured with four items that examined participants' intentions to exhibit certain relevant behaviours. The second reason for selecting this measure is that it is the only published stigma measure that has been specifically developed for managers. Corrigan and Shapiro (2010) have highlighted the importance of selecting measures of stigma which reflect the specific interest of the target group.

Participants respond on a six-point scale ranging from 1 (strongly disagree) to 6 (strongly agree). A higher score denotes higher levels of stigma. There were two

negative items that are reversed prior to analysis. The sum of the three sub-scales are aggregated to obtain the total Managerial Stigma Scale score.

The internal consistency of the Managerial Stigma Scale has been reported as acceptable in previous research: the affective stigma construct had a Cronbach's alpha of .77, the cognitive stigma construct had a Cronbach's alpha of .72, and the alpha coefficient for behavioural stigma was .75 (Martin, Under review). The internal consistency of this measure overall in the evaluation study was acceptable, with Cronbach's alpha coefficient of .79 for the total stigma scale. The alpha coefficients for the affective, cognitive and behavioural stigma sub-scales in the evaluation study were .72, .65 and .58, respectively.

Social distance. The five-item Social Distance Scale (SDS) has been widely used (for example, K. Griffiths et al., 2006; Jorm et al., 2010; Kitchener & Jorm, 2004; N. Reavley & Jorm, 2011) with acceptable reliability (Cronbach's alpha ranged from .75-.93), as demonstrated by Link and Cullen (1983). The Cronbach's alpha coefficient in the evaluation study was acceptable at .74. After reading a short vignette about a man called 'John' who is displaying common signs of depression, participants rated each behaviour on a four-point scale ranging from 'definitely willing' to 'definitely unwilling'. Higher scores denoted a greater desire for social distance.

Vignette*: John is 30 years old. He has been feeling unusually sad and miserable for the last few weeks. Even though he is tired all the time, he has trouble sleeping nearly every night. John doesn't feel like eating and has lost weight. He can't keep his mind on his work and puts off making any decisions. Even day-to-day tasks seem too much for him. This has come to the attention of John's boss who is concerned about his lowered productivity.*

Organisational mental health strategy. The extent to which participants had a mental health strategy in place in their organisation was measured using the five-item Mental Health Strategy Scale developed by Martin (2010). This scale was developed to be an indicator of an organisation's 'psychological climate' in relation to mental health (Martin, 2010) and had acceptable internal consistency in the evaluation study with a Cronbach's alpha coefficient of .74. It was selected to allow comparison with the results from Martin's (2010) study of stigma in Australian managers.

All five items were reverse scored prior to analysis to ensure directional alignment (that is, where a higher score represents the 'undesirable' state, behaviour, attitude or emotion) with other scales in the survey. Participants respond on a six-point scale ranging from 1 (strongly agree) to 6 (strongly disagree). A higher score denotes a perceived lack of organisational commitment to managing mental health problems adequately in the workplace.

Depression disclosure norms. The extent to which participants felt that the organisation that they worked for supported the disclosure of depression in the workplace was measured using the six-item Depression Disclosure Norms Scale developed by Martin (2010). The Cronbach's alpha coefficient in the evaluation study for this scale was acceptable at .83. This scale was developed to be an indicator of an organisation's 'psychological climate' and reflects a descriptive norms approach (Martin 2010). This measure was selected to allow comparison with the results from Martin's (2010) study of stigma in Australian managers. Participants responded on a six-point scale ranging from 1 (strongly disagree) to 6 (strongly agree). A higher score indicates lower organisational support for the disclosure of depression. Two negative items were reversed prior to analysis.

Pre-training motivation. An abbreviated four-item Pre-Training Motivation Scale developed by Noe and Wilk (1993) was used to assess participants' motivation to learn from the online program. The internal consistency reliability for this scale in previous research was acceptable with a Cronbach's alpha coefficient of .81 (Noe & Wilk, 1993). The alpha coefficient in the evaluation study was .90. The original scale was eight items. Given the repetitive nature of some of the items and the need to minimise the length of the surveys in the evaluation study, a decision was made to exclude four items.

Participants respond on a five-point scale ranging from 1 (strongly agree) to 5 (strongly disagree). A higher score indicates a lower level of motivation to learn from the program.

Reaction to and perceived usability of the online program. Participants' reaction to the online program and its perceived usability were measured via a 10-item Reaction and Usability Scale adapted from Billings et al (2008). Items are scored on a six-point scale from 1 (strongly agree) to 6 (strongly disagree). Higher scores indicate lower reported usability of, and a more negative reaction to, the online program. All but one of the items used by Billings et al (2008) were administered. A decision was made to exclude the 'comprehensiveness' item as it was not seen as relevant. The information in the online program for leaders was designed to provide a brief overview of the issues of workplace mental health for time-poor leaders, rather than being a lengthy, comprehensive program. An additional two-items were added after consultation with beyondblue. These were '*The content of this program was relevant to my job role*' and '*I would recommend the program to other organisational leaders*'. They requested inclusion of these so they could use responses in future

promotional material for the online program. The internal consistency of this scale in the evaluation study was acceptable, with a Cronbach's alpha coefficient of .94.

All items were reverse scored prior to analysis to ensure directional alignment (that is, where a higher score represented the 'undesirable' state, behaviour, attitude or emotion) with other scales in the survey.

Training transfer. The extent to which participants' applied the learning from the online program back to their workplace (that is, training transfer) was measured using a five-item scale adapted from Brinkerhoff's (2002) SCM. The commitment of participants and their managers to workplace mental health was also measured using this scale. See Chapter 5 for further detail about this approach and the rationale for selecting it as part of this study. Participants respond on either a four- or five-point scale to each item. A lower score denotes higher levels of perceived application of learning in the workplace and commitment to workplace mental health.

Two items from this scale were used to form an 'application of learning' sub-scale. Responses to these two items were coded dichotomously as either 'did implement' or 'did not implement' the learning.

Results

Data preparation. Exploratory data analysis (screening and cleaning) was performed to identify outliers and data entry errors and to check statistical assumptions. No outliers were identified. There was no missing data in the data file as all online survey questions were mandatory, that is, participants could not submit their survey responses without completing all questions.

Approach to data analysis. Following the export of quantitative survey data from the 'Moodle' online software tool and data coding, descriptive statistics were calculated using SPSS Version 22 software package.

Analysis of variance (ANOVA) with planned comparisons and *t*-tests was carried out to examine the differences between participants based on personal characteristics and their total stigma scores at baseline (H1a-e, see Table 18 below for a list of the hypotheses and research questions). ANOVAs and *t*-tests were conducted to analyse the relationship, at baseline, between stigma and gender (H1a), age (H1b), educational attainment (H1c), sector (H1d), and previous experience with depression (H1e).

One-way analysis of covariance (ANCOVA) was conducted to examine the difference between the experimental and control groups on the following post-survey scores: levels of stigma (H2), depression knowledge (H3) and desire for social distance towards someone with depression (H4). The detailed results of these analyses are displayed in Tables 27 to 29.

The maintenance of the main effects of the online program on participants' stigma scores at 6-month follow-up (H5) was measured via *t*-tests. The exploration of variables that may have impacted on whether participants implemented the learning

from the online program (RQ1) employed chi-square tests and *t*-tests. Effect sizes were measured using eta-squared and Cohen's *d*.

Table 18. *Hypotheses and Research Questions Tested and Explored in the Evaluation Study*

No.	Hypothesis and Research Question
	Baseline analyses of personal characteristics associated with stigma:
H1a	At baseline, male organisational leaders would have higher levels of stigma than female leaders.
H1b	At baseline, older organisational leaders would have higher levels of stigma than younger leaders.
H1c	At baseline, organisational leaders without a tertiary education would have higher levels of stigma than those with a tertiary education.
H1d	At baseline, organisational leaders working in the private sector would have higher levels of stigma than leaders working in other sectors.
H1e	At baseline, organisational leaders who have not experienced depression would have higher levels of stigma than those who have experienced depression.
	Main effects of the online program:
H2	Organisational leaders who complete the online program (experimental group) would report a greater reduction in stigma, and in each of the cognitive, affective and behavioural components of stigma, than those in the wait-list control.
H3	Organisational leaders who complete the online program (experimental group) would report a greater increase in knowledge about depression, than those in the wait-list control.
H4	Organisational leaders who complete the online program (experimental group) would report a greater reduction in social distance towards someone with depression, than those in the wait-list control.
	Maintenance of main effects for online program:
H5	Any reduction in stigma (affective, cognitive, behavioural and total stigma) observed for the experimental group at post-test would be sustained at six months follow-up.
	Implementation of learning from the online program:
RQ1	What individual characteristics are associated with organisational leaders being more likely to apply learning from the online program (that is, demonstrate training transfer and behaviour change)?
RQ2	How did the organisational leaders apply the learning from the online program and what results did this application produce?
RQ3	What are the contextual factors that impact on successful and unsuccessful implementation of action plans and/or application of the learning from the online program?

Demographic characteristics of the quantitative study participants. Table 19 outlines the demographic characteristics of the quantitative sample at the three data collection time points: pre, post and 6-month follow-up. At baseline, there were slightly more female leaders (n = 163, 52 percent) who participated in the study then male leaders (n = 148, 48 percent). The average age of participants was 41-50 years old, and almost all (n = 291, 94 percent) participants held tertiary qualifications. The majority of leaders in the sample worked in the private sector (n = 165, 53 percent) and just over half had experienced depression themselves (n = 167, 54 percent). Despite attrition, this broad profile of sample demographic characteristics was observed consistently across the three data collection time points in the evaluation study.

Table 19. *Demographic Characteristics of the Sample at Time 1 (Pre-Survey), Time 2 (Post-Survey), and Time 3 (6-Month Follow-Up)*

	Time 1 (*n* = 311) *n* (%)	Time 2 (*n* = 196) *n* (%)	Time 3 (*n* = 147) *n* (%)
Gender			
Male	148 (48)	95 (49)	73 (50)
Female	163 (52)	101 (51)	74 (50)
Age range			
18-24 years	1 (1)	0	0
25-30 years	15 (5)	7 (4)	6 (4)
31-40 years	74 (24)	49 (25)	34 (23)
41-50 years	126 (41)	70 (36)	54 (37)
51-60 years	78 (25)	60 (31)	47 (32)
61 years or older	17 (6)	10 (5)	6 (4)
Highest education level			
Primary school	1 (1)	1 (1)	1 (1)
Secondary school	16 (5)	11 (6)	8 (5)
Vocational training (e.g., trade certificate)	3 (1)	2 (1)	2 (1)
Tertiary (e.g., diploma, bachelor degree)	161 (52)	96 (49)	67 (46)
Post graduate (e.g., masters/ doctorate)	130 (42)	86 (44)	69 (47)
Type of organisation			
Public sector	98 (32)	67 (34)	54 (37)
Private sector	165 (53)	96 (49)	67 (46)
Not for profit/community	45 (15)	32 (16)	26 (18)
Other	3 (1)	1 (1)	0
Personal experience of depression			
Yes	167 (54)	108 (55)	83 (57)
No	144 (46)	88 (45)	64 (43)

Intention to treat analysis. The data were analysed according to intention-to-treat principles, so that all participants who completed the pre-survey were included in the analysis, regardless of subsequent attrition. Intention to treat is a widely supported strategy for the analysis of randomised controlled trials that compare participants in the group to which they were originally randomly assigned, regardless of whether they actually receive treatment or subsequently withdrawal from the study (Fergusson, Aaron, Guyatt, & Hebert, 2002; Hollis & Campbell, 1999). The approach

adopted in the evaluation study is the same as that used by Kitchener and Jorm (2004) and Deitz, Cook, Billings and Hendrickson (2008).

In order to assess possible non-response bias and attrition effect, participants who responded to both the pre and post surveys (n = 64 for the experimental group, n = 132 for the control group) were compared to those that only completed the pre survey (n = 88 for the experimental group, n = 22 for the control group). Given the relatively high number of people in the experimental group who did not complete the post survey (57 percent), this analysis was intended to indicate whether the respondents differed from non-respondents at the post data collection point. Chi-square tests were employed to assess non-response bias between these two groups of participants in terms of demographic characteristics. Table 20 shows the results of the Chi-square tests. No significant associations were noted between the two groups on any of the demographic variables, with one exception: participants in the experimental group who only completed the pre-survey were more likely to be aged 50 years or younger (77.3 percent) than those who completed both surveys (56.2 percent), χ^2 (1, N = 152) = 14.01, *p*.02. Given the above, it was assumed that non-response bias would not confound the results in the evaluation study.

Reliabilities and inter-correlations of evaluation study variables. Table 21 presents variable inter-correlations and reliabilities. Preliminary examination of the correlations demonstrated relationships in anticipated directions. Cronbach's alpha coefficients were above the acceptable level of 0.7 for all relevant measures, with the exception of the cognitive and behavioural stigma sub-scales.

Table 20. *Results of the Chi-Square Tests Conducted on Participants in the Experimental (Exp) and Control (con) Groups who Responded to the Pre-survey Only Compared to Those that Responded to Both.*

	Pre only (exp)	**Pre and Post (exp)**	χ^2 ***value***	***p* value**	**Pre only (con)**	**Pre and Post (con)**	χ^2 ***value***	***p* value**
Gender			.05	.82			.02	.90
Male	41	31			11	64		
Female	47	33			11	68		
Age range			14.01	.02*			3.06	.55
18-24 years	1	0			-	-		
25-30 years	7	2			0	5		
31-40 years	17	15			8	34		
41-50 years	44	19			10	51		
51-60 years	15	26			3	34		
61 years or older	4	2			1	8		
Highest education level			2.70	.44			.99	.91
Primary school	-	-			0	1		
Secondary school	3	2			2	19		
Vocational training (e.g., trade cert)	1	1			0	1		
Tertiary (e.g., diploma, bachelors)	54	31			9	65		
Post graduate (e.g., masters/ doctorate)	30	30			11	56		
Type of organisation			4.90	.18			1.02	.60
Public sector	24	27			5	40		
Private sector	55	29			11	67		
Not for profit/community	7	7			45	78		
Other	2	1			-	-		
Personal experience of depression			.39	.53			.07	.79
Yes	43	28			14	80		
No	45	36			8	52		

*p = .05

Table 21. *Descriptive Statistics, Reliabilities and Inter-Correlations of Evaluation Study Variables*

Study variables	***M***	***SD***	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**13**	**14**	**15**	**16**
1.Gender	1.48	.50																
2.Age	4.02	.97	.11															
3.Education	4.30	.76	-.07	-.05														
4.Sector	1.85	.69	-.03	.09	-.02													
5.Depression experience	1.46	.50	-.63	-.10	.10	-.02												
6.Depression knowledge	7.84	1.36	-.18**	-.06	.22**	-.01	-.06											
7.Affective stigma	11.20	3.22	.07	.02	.09	-.18**	.20**	-.19**	(.72)									
8.Cognitive stigma	6.48	2.15	.17**	.07	-.04	-.01	.06	-.28**	.34**	(.65)								
9.Behavioural stigma	6.85	2.22	.26**	.06	-.04	-.07	.14*	-.29*	.43**	.57**	(.58)							
10.Total stigma	24.50	5.98	.20**	.06	.01	-.12*	.17**	-.31**	.81**	.74**	.80**	(.79)						
11.Social distance	10.02	2.76	.02	.03	.05	-.06	.06	-.24**	.41**	.37**	.41**	.50**	(.74)					
12.Mental health strategy	17.40	5.05	.05	.01	-.01	.07	-.04	-.26**	.19**	.11	.15**	.20**	.15**	(.74)				
13.Depression disclosure	18.23	5.55	.05	-.10	-.10	-.16**	-.16**	-.18**	.22**	.14*	.21**	.24**	.14*	.45**	(.83)			
14.Pre-training motivation	7.61	3.07	.16**	.01	.13*	-.08	.09	-.08	.16**	.15**	.17**	.20**	.15**	-.07	-.07	(.90)		
15.Reactions and usability	20.45	8.22	-.01	.05	.15	.01	.09	-.20	.07	-.01	.11	.08	.35**	.03	.02	.16	(.94)	
16.Training transfer	10.89	2.70	.11	-.02	.20	-.04	.12	-.17	.11	-.05	.22	.14	.06	.20	.21	.18	.20	

Notes: Cronbach's alpha coefficients are shown in parentheses on the diagonal (where they apply to Likert scales); *p = .05; ** p =.01.

Baseline analyses of personal characteristics associated with stigma.

Hypothesis 1a: *At baseline, male organisational leaders would have higher levels of stigma.*

As a Levene's test results indicated the assumption of homogeneity of variance was met, $p = .07$, a two-tailed independent samples *t*-test based on equal variances was carried out to examine the differences between male and female participants and their total stigma scores before they completed the online resource and/or the post-survey. A significant difference between male and female participants was found in relation to total stigma scores at baseline, $t(309) = -3.62$, $p = .001$, $d = .41$, 95% CI [.20, .63]. As can be seen from Table 22 men reported higher levels of stigma than females.

Table 22. *Baseline Total Stigma Scale Score Descriptive Statistics for Males and Females.*

Gender	*n*	*M*	*SD*	*CI 95%*	
Female	163	23.35	5.39	22.52	24.18
Male	148	25.76	6.35	24.73	25.17

Hypothesis 1b: *At baseline, older organisational leaders would have higher levels of stigma.*

One-way between subjects ANOVA was used to examine the differences between participants of different age groups and total stigma scores at baseline. See Table 23 for the baseline total stigma score descriptive statistics. No significant

differences were found between age groups on total stigma scores, $F(5, 305) = .60$, $p = .70$, $\eta^2 = .01$, 95% CI [.00, .02].

Table 23. *Baseline Total Stigma Scale Descriptive Statistics by Age Group*

Age	*n*	*M*	*SD*	*CI 95%*	
18-24 years*	1	18.00	-	-	-
25-30 years	15	23.73	5.68	20.59	26.88
31-40 years	74	24.55	5.52	23.28	25.83
41-50 years	126	24.25	6.13	23.17	25.34
51-60 years	78	24.72	6.25	23.31	26.13
61 years or older	17	26.12	6.14	22.96	29.28

Note. * only one participant was aged 18-24 years, therefore statistical analysis was not conducted.

Hypothesis 1c: *At baseline, organisational leaders without a tertiary education would have higher levels of stigma.*

A one-way between subjects ANOVA was used to examine the differences between participants' educational level and total stigma scores at baseline. See Table 24 for the baseline total stigma score descriptive statistics. No significant differences were found on total stigma scores across education levels, $F(4, 306) = 1.15$, $p = .33$, $\eta^2 = .01$, 95% CI [.00, .04].

Table 24. *Baseline Total Stigma Scale Descriptive Statistics for Participants' Education Level*

Highest education level	*n*	*M*	*SD*	*CI 95%*	
Primary school*	1	34.00	-	-	-
Secondary school	16	22.75	4.93	20.12	25.38
Vocational training	3	22.33	2.98	15.16	29.50
Tertiary (under-graduate)	161	24.74	6.08	23.79	25.68
Tertiary (post graduate)	130	24.39	6.00	23.35	23.43

Note. * there was only one participant who left school after primary school, and therefore statistical analysis was not completed.

Hypothesis 1d: *At baseline, organisational leaders working in the private sector would have higher levels of stigma.*

A between subjects planned comparison was used to examine the differences in total stigma scores at baseline according to employment sector. See Table 25 for the baseline total stigma score descriptive statistics. As a Levene's test indicated that the homogeneity of variance assumptions were met, $p = .26$, the planned comparison was based on equal variances. Planned comparison revealed that the total stigma scale scores were significantly different for participants who worked in the private sector compared to those who worked in other sectors, $F(3, 307) = 4.50$, $p = .004$, $\eta^2 = .04$, 95% CI [.01, .09]. As can be seen in Table 8.8 those who worked in the private sector had higher levels of stigma than those that worked in the public and not for profit/community sectors.

Table 25. *Baseline Total Stigma Scale Descriptive Statistics for Participants' Work Sectors*

Type of organisation	*n*	*M*	*SD*	*CI 95%*	
Public sector	98	24.71	5.98	23.53	25.89
Private sector	165	25.18	6.12	24.24	26.12
Not for profit/community	45	21.58	4.68	20.17	22.98
Other	3	23.67	8.73	1.96	45.37

Hypothesis 1e: *At baseline, organisational leaders who have not experienced depression would have higher levels of stigma than those who have experienced depression.*

As a Levene's test indicated that the assumption of homogeneity of variance was met, $p = .40$, a two-tailed independent samples *t*-test based on equal variances was carried out to examine the differences between participants' stigma scores who had a personal experience of depression and those who had not. A significant difference was found in relation to total stigma scores at baseline, $t(309) = -3.09$, $p = .002$, $d = 0.35$, 95% CI [.14, .57]. As can be seen from Table 26 those without a personal experience of depression had significantly higher levels of stigma than those that had experienced depression.

Table 26. *Baseline Total Stigma Scale Descriptive Statistics for Participants With and Without a Personal Experience of Depression*

Experience of depression	*n*	*M*	*SD*	*CI 95%*	
Yes	167	23.54	5.72	22.67	24.41
No	144	25.61	6.10	24.61	25.17

Main effects of the online program.

Hypothesis 2: *Organisational leaders who complete the online program (experimental group) would report a greater reduction in stigma, in each of the cognitive, affective and behavioural components of stigma, than those in the wait-list control.*

Total managerial stigma sub-scale. Table 27 provides a summary of descriptive statistics for the pre and post stigma scores for the experimental and control groups.

Table 27. *Summary of Descriptive Statistics for the Pre and Post Managerial Stigma Scale and Three Sub-Scales*

	n	Pre *M*	CI 95%	*n*	Post *M*	CI 95%	SD	Covariate Adjusted Means	CI 95%
Affective									
Experimental	155	11.52	11.02 - 12.01	64	9.67	8.97-10.37	2.80	9.97	9.67-10.26
Control	156	10.89	10.37 - 11.41	132	10.39	9.84-10.94	3.20		
Cognitive									
Experimental	155	6.52	6.17-6.87	64	6.03	5.54-6.52	1.96	6.30	6.01-6.45
Control	156	6.43	6.10-6.76	132	6.41	6.07-6.75	1.96		
Behavioural									
Experimental	155	6.84	6.48-7.20	64	6.28	5.77-6.79	2.04	6.61	6.37-6.85
Control	156	6.87	6.52-7.21	132	6.96	6.61-7.32	2.07		
Total									
Experimental	155	24.88	23.94-25.81	64	21.98	20.62-23.35	5.47	22.78	22.25-23.32
Control	156	24.12	23.16-25.08	132	23.76	22.75-24.76	5.84		

A single-factor between-subjects ANCOVA was conducted to examine the difference between the experimental and control groups' post-survey total stigma scores (that is, by combining the affective, cognitive and behavioural sub-scale scores). Pre-survey total stigma scores were the sole covariate in each analysis. After controlling for pre-survey variance, a significant difference was found between the experimental and control groups, $F(1,193) = 17.84$, $p < .001$, $\eta^2 = .09$, 95% CI [.02, .17], with estimated marginal means indicating that the experimental group had lower mean post-survey scores on the total stigma scale.

Affective stigma sub-scale. A single-factor between-subjects ANCOVA was conducted to examine the difference between the experimental and control groups' post-survey affective stigma scores. Pre-survey affective stigma scores were the sole covariate in each analysis. After controlling for pre-survey variance, a significant difference was found between the experimental and control groups, $F(1,193) = 13.44$, $p < .001$, $\eta^2 = .07$, 95% CI [.01, .14], with estimated marginal means indicating that the experimental group had lower mean (M=9.67) post-survey scores on the affective stigma scale, compared to the control group (M=10.39).

Cognitive stigma sub-scale. A single-factor between-subjects ANCOVA was conducted to examine the difference between the experimental and control groups' post-survey cognitive stigma scores. Pre-survey cognitive stigma scores were the sole covariate in each analysis. However, after controlling for pre-survey variance, no significant difference was found between the experimental and control groups, $F(1,193) = 2.08$, $p = .15$, $\eta^2 = .01$, 95% CI [.00, .56].

Behavioural stigma sub-scale. A single-factor between-subjects ANCOVA was conducted to examine the difference between the experimental and control groups' post-survey behavioural stigma scores. Pre-survey behavioural stigma scores were the sole covariate in each analysis. After controlling for pre-survey variance, a significant difference was found between the experimental and control groups, $F(1,193) = 9.77$, $p < .002$, $\eta^2 = .05$, 95% CI [.01, .12], with estimated marginal means indicating that the experimental group had lower mean post-survey scores on the behavioural stigma scale than the control group.

Hypothesis 3: *Organisational leaders who complete the online program (experimental group) would report a greater increase in knowledge about depression, than those in the wait-list control.*

See Table 28 for a summary of descriptive statistics for the pre and post depression knowledge scores for the experimental and control groups.

Table 28. *Summary of Descriptive Statistics for the Pre and Post Depression Knowledge Scores for the Experimental and Control Groups*

		Pre	CI		Post	CI		Co-variate Adjusted	CI
	n	*M*	95%	*n*	*M*	95%	*SD*	Means	95%
Experimental	155	7.84	7.53 - 8.15	64	7.81	7.51 - 8.12	1.22	7.87	7.71 - 8.02
Control	156	7.92	7.69 - 8.14	132	7.91	7.68 - 8.14	1.35	-	-

A single-factor between-subjects ANCOVA was conducted to examine the difference between the experimental and control groups' post-survey knowledge about depression. Pre-survey depression knowledge scores were the sole covariate in each analysis. However, after controlling for pre-survey variance, no significant difference was found between the experimental and control groups, $F(1,193) = .11$, p .75, $\eta^2 = .01$, 95% CI [.00, .02].

Hypothesis 4: *Organisational leaders who complete the online program (experimental group) will report a greater reduction in social distance towards someone with depression, than those in the wait-list control.*

See Table 29 for a summary of descriptive statistics for the pre and post social distance scores for the experimental and control groups.

Table 29. *Summary of Descriptive Statistics for the Pre and Post Social Distance Scores for the Experimental and Control Groups*

	n	Pre *M*	CI 95%	*n*	Post *M*	CI 95%	*SD*	Co-variate Adjusted Means	CI 95%
Experimental	155	10.41	9.98-10.84	64	9.63	8.82 - 10.43	3.24	9.55	9.21 - 9.89
Control	156	9.63	9.20-10.07	132	9.67	9.15 - 10.18	3.00	-	-

A single-factor between-subjects ANCOVA was conducted to examine the difference between the experimental and control groups' post-survey desire for social distance scores. Pre-survey social distance scores were the sole covariate in each analysis. However, after controlling for pre-survey variance, no significant difference was found between the experimental and control groups, $F(1,193) = 2.87$, p .092, $\eta^2 =$ .02, 95% CI [.00, .06].

Maintenance of main effects of the online program

Hypothesis 5: *The reduction in stigma (affective, cognitive, behavioural and total stigma) observed for the experimental group at post-test will be sustained at six months follow-up.*

Total Stigma Scores

Table 30 below presents the descriptive statistics for the experimental group's total stigma scale scores at post-test and at 6-month follow-up.

Table 30. *Descriptive Statistics for the Total Stigma Scale Scores in the Experimental Group at Post-Test and 6-Month Follow-Up*

	M	*SD*
Post-test	23.27	5.89
6 month follow-up	23.13	5.88

A two-tailed paired samples *t*-test was used to examine the differences between total stigma post-test scores and total stigma scores at 6-month follow-up. No significant difference was found, $t(45) = -.74$, $p = .462$, $d = -.11$, 95% CI [.00, .39],

indicating that the effect from the online program was maintained. Descriptive statistics are provided in Table 30.

Affective Stigma Scores

Table 31 below presents the descriptive statistics for the experimental group affective stigma scale scores at post-test and 6 month follow-up.

Table 31. *Descriptive Statistics for the Experimental Group's Affective Stigma Scale Scores at Post-Test and 6-Month Follow-up*

	M	*SD*
Post-test	10.14	3.12
6 month follow-up	9.95	2.92

A two-tailed paired samples *t*-test was used to examine the differences between affective stigma post-test scores and affective stigma scores at 6-month follow-up. No significant difference was found, $t(45) = -.19$, $p = .850$, $d = -.03$, 95% CI [.00, .18]. Descriptive statistics are provided in Table 31.

Cognitive Stigma Scores

Table 32 below presents the descriptive statistics for the experimental group's cognitive stigma scale scores at post-test and 6 month follow-up.

Table 32. *Descriptive Statistics for the Experimental Group's Cognitive Stigma Scale Scores at Post-Test and 6-Month Follow-up*

	M	*SD*
Post-test	6.35	2.01
6 month follow-up	6.38	2.16

A two-tailed paired samples t-test was used to examine the differences between cognitive stigma post-test scores and cognitive stigma scores at 6-month follow-up.

No significant difference was found, $t(45) = -.79$, $p = .432$, $d = .17$, 95% CI [.01, .23]. Descriptive statistics are provided in Table 32.

Behavioural Stigma Scores

Please see Table 33 below for descriptive statistics for the experimental group's behavioural stigma scale scores at post-test and 6-month follow-up.

Table 33. *Descriptive Statistics for the Experimental Group's Behavioural Stigma Scale Scores at Post-Test and 6-Month Follow-up*

	M	*SD*
Post-test	6.78	2.02
6 month follow-up	6.80	2.17

A two-tailed paired samples *t*-test was used to examine the differences between post-test at 6-month follow-up behavioural stigma scores. No significant difference was found, $t(45) = -.74$, $p = .462$, $d = -.11$, 95% CI [.00, .39]. Descriptive statistics are provided in Table 33.

Table 34 provides a summary of the outcomes of the analyses relevant to all twelve hypotheses tested.

Table 34. *Summary of Results of the Quantitative Analysis for the Hypotheses*

Hypothesis		Results
H1a:	At baseline, male organisational leaders would have higher levels of stigma than female leaders.	Supported
H1b:	At baseline, older organisational leaders would have higher levels of stigma than younger leaders.	Not supported
H1c:	At baseline, organisational leaders without a tertiary education would have higher levels of stigma than those with a tertiary education.	Not supported
H1d:	At baseline, organisational leaders working in the private sector would have higher levels of stigma than those in other sectors.	Supported
H1e:	At baseline, organisational leaders who have not experienced depression would have higher levels of stigma than those who have experienced depression.	Supported
H2:	Organisational leaders who complete the online program (experimental group) would report a greater reduction in stigma, and in each of the cognitive, affective and behavioural components of stigma, than those in the wait-list control.	Supported (affective and behavioural only)
H3:	Organisational leaders who complete the online program (experimental group) would report a greater increase in knowledge about depression, than those in the wait-list control.	Not supported
H4:	Organisational leaders who complete the online program (experimental group) would report a greater reduction in social distance towards someone with depression, than those in the wait-list control.	Not supported
H5:	Any reduction in stigma (affective, cognitive, behavioural and total stigma) observed for the experimental group at post-test would be sustained at six months follow-up.	Supported

Exploration of Research Questions

Examination of the first research question involve exploration of thirteen variables that may have impacted on implementation of the learning from the online workplace mental health program.

Implementation of learning from the online program.

Research question 1: *What individual characteristics are associated with organisational leaders being more likely to apply learning from the online program (that is, demonstrate training transfer and behaviour change)? Variables to be considered are: depression knowledge, stigma levels, gender, age, education level, sector, personal experience of depression, pre-training motivation, organisational mental health strategy, disclosure norms, manager support for implementation and for workplace mental health, relevance of content of the program and usability of program.*

Two sets of analyses were conducted to explore this research questions. First, two-tailed independent samples *t*-tests based on equal variances were carried out to examine the differences between those participants who did and did not implement the learning from the online program in relation to the following leader characteristics: depression knowledge stigma levels, pre-training motivation, organisational mental health strategy, organisational depression disclosure norms, relevance of the content of the online program and usability of the online program. No significant differences were found. However, the difference between the rated usability of the online program for those participants who did and did not implement the learning was close to being statistically significant and had a moderate effect size, $t(44) = -.1.81$, $p = .077$, $d = .55$, 95% CI [.07, .61]. Table 35 below provides a summary of the descriptive statistics and the results of the *t*-tests outlined above.

Table 35. *Descriptive Statistics and Results of the t-Test Differences Between Those Participants Who Did and Did Not Implement the Learning from the Online Program and Seven Different Variables*

	Did implement the learning (n=28)			Did not implement the learning (n=18)			*t-score / χ^2 value*	*p* value
	M	SD	95% CIs	M	SD	95% CIs		
Depression knowledge	8	1.01	7.58-8.42	7.72	1.20	7.14-8.31	.82	.418
Stigma levels	24.29	5.67	22.09-26.48	25	4.74	22.64-27.36	-.44	.659
Pre-training motivation	7.39	2.18	6.55-8.24	7.89	4.12	5.84-9.94	-.53	.597
Mental health strategy	16.68	4.79	14.82-18.53	19.17	5.58	16.39-21.94	-1.61	.114
Depression disclosure norms	16.25	5.02	14.31-18.19	18.17	5.19	15.58-20.75	-1.25	.219
Relevance of content	1.89	0.83	1.57-2.22	2.17	0.86	1.74-2.59	-1.08	.287
Usability of the program	2.32	1.34	1.80-2.84	3.06	1.35	2.38-3.73	-1.81	.077

Second, contingency table analyses were run to assess the association between those participants who did and did not implement the learning from the online program and the following variables: gender, age, education level, sector, personal experience of depression, and manager support implementing the learning. No significant associations were found. Table 36 below provides a summary of the results of the Chi-square analyses outlined above.

Table 36. *Results of the Chi-Square Analysis of the Associations Between Those Participants Who Did (n = 28) and Did Not (n = 18) Implement the Learning from the Online Program and Six Different Variables*

	χ^2 *value*	*p* value
Gender	0.06	.813
Age	3.79	.437
Education level	1.36	.716
Sector	3.79	.151
Experience of depression	0.14	.713
Manager support	0.01	.916

It can be seem from the above analysis that none of the individual characteristics analysed were significantly associated with organisational leaders being more likely to apply the learning from the online program.

Conclusion

This chapter summarised the participants and sampling technique used in this study, the data collection procedures, and the measures administered. A sample of organisational leaders were randomly assigned to either an experimental or control group in order to evaluate the program. Quantitative data was collected via online

surveys at three time points: baseline, one week and six-months following program completion. Previously published scales were used where possible, with a small number of existing scales adapted to align with the purpose of the study. The approach taken to the statistical analysis of the data and the results of the analysis undertaken to address the hypotheses and the first research question developed in Chapter 7 were outlined. Results indicated that, as predicted, levels of stigma at baseline were higher for men, leaders employed in the private sector and those with no prior personal experience of depression. As hypothesised, overall, stigma levels were reduced as a result of participants completing he online program, and these effects were maintained at six months. The online program did not, however, improve leader's knowledge of depression or desire for social distance from someone with depression. The next chapter will present the methods and results for the qualitative component of the evaluation.

Chapter 9: Method and Results for the Qualitative Data

Introduction

The previous chapter outlined the methods and results from the quantitative section of the evaluation study. After the quantitative data was collected, a sub-group of participants was invited to participate in semi-structured interviews. The interviews were designed to explore how participants had (or had not) applied the learning from the online program, and the contextual and organisational factors that either enabled or prevented the application of the learning. This chapter presents the methods used to collect the qualitative data, including how the sub-group of participants was selected. The approach to data coding and thematic analysis is outlined. The chapter concludes with the results of the thematic analysis.

Methods

Participants. Participants were a sub-group of 16 of the organisational leaders who participated in the large quantitative study. As can be seen from Table 37, seven were female and nine were male. All participants were aged 30 years or older, with half aged between 51-60 years and the majority employed in the public sector.

Procedures. Following collection of quantitative data at the three time points, all participants in the experimental group who completed the online program and follow-up survey were asked if they would agree to be interviewed by the researcher. Of these, twenty-four agreed and twenty-two declined. The total scores on the Training Transfer Scale in the follow-up surveys of those that agreed to be interviewed were used to rank participants in terms of the extent to which they had

used or applied the information in the online program in their workplace. Those who were ranked lowest were labelled “most successful” at applying the learning and those ranked the highest were labelled “least successful”. The 10 most successful and 10 least successful participants were then invited to an interview. Interviews were conducted with 9 successful cases and 7 least successful cases (see Figure 10 in the previous chapter for participant flow and retention through the qualitative components of the evaluation study). Interviews were recorded, de-identified and transcribed. All participants provided verbal consent for the interview to be recorded. Independent thematic analysis of emergent themes was undertaken by the primary researcher and a psychologist from the School of Health Sciences at RMIT University who was independent to this project**.**

Table 37. *Demographic Characteristics of the Qualitative Study Sample*

	Most successful	Least successful	TOTAL
Gender			
Male	5	4	9
Female	4	3	7
Age range			
18-24 years	-	-	-
25-30 years	-	-	-
31-40 years	-	2	2
41-50 years	3	3	6
51-60 years	6	2	8
61 years or older	-	-	-
Type of organisation			
Public sector	5	4	9
Private sector	3	3	6
Not for profit/community	1	-	1
Other	-	-	-
TOTAL	9	7	16

Measures. Semi-structured interview questions for most successful and least successful cases were adapted from those suggested in the SCM (Brinkerhoff, 2002). The purpose of the semi-structured interview was threefold: (i) to obtain information about the efficacy of the online program, (ii) explore issues with training transfer and (iii) identify opportunities for increasing transfer in future mental health training programs.

Interview questions for most successful and least successful cases were developed in line with Brinkerhoff's (2002) recommendations. Interview questions for the successful cases fall into five distinct categories: 'What was used?', 'What results were achieved?', 'What good did it do?', 'What helped?' and 'Any suggestions?' Questions for the least successful cases fall into two categories: 'What were the barriers?', and, 'Any suggestions?' For the evaluation study, six interview questions were developed for most successful cases and three for least successful cases (see Table 38).

Table 38. *Semi-Structured Interview Questions (adapted from Brinkerhoff, 2002)*

Most successful cases	Least successful cases
Exactly how, when and where did you use the material in the program?	Why have you been unable to use the material in the program?
What specific parts of the material in the program did you use?	What barriers prevented you from using it? (for example, quality of the material, work pressure, lack of support back in the workplace)
What results did this help you achieve?	
What value did these results have?	Do you have any suggestions about what could have increased your likelihood to utilise the material in the program?
How do you know that it was the material in the program that helped you achieve these results? (that is, did you already know how to do this?)	
What helped you use the material in the program and get these results?	

Results

Approach to thematic analysis. Thematic analysis was conducted on the semi-structured interview data in the NVivo for Mac software package (QSR International, 2012). Qualitative data generated from the semi-structured interviews were thematically analysed using the thematic analysis approach outlined by Braun and Clarke (2006). This approach includes six phases. During the first phase, 'familiarisation with the data', interview transcripts were read in their entirety several times by both coders to develop an impression of the depth and breadth of the data. Preliminary notes were made, with a view to phase two, 'generation of initial codes'. In this second phase, coding of content was used to organise the data into meaningful groups. Five themes were identified by the primary coder and seven by the second coder. Themes from the two coders were very similar and were combined into six themes.

The third phase, 'searching for themes', involved searching for and sorting the codes into broader patterns. Phase four, review of themes, focused on refinement and agreement of the final six themes and eighteen sub-themes.

All extracts in each theme were reread for coherence. Next, these themes were checked as an accurate representation of the data set as a whole. The researchers cross-checked each other's coding to improve accuracy. Some extracts were sorted under more than one theme. Some re-coding was conducted at this stage. In the fifth phase, 'defining and naming of themes', the essence of each theme was determined by considering both its own unique contribution and how it contributed to the broader narrative of the data as a whole. The sixth and final phase involved the selection of extracts to illustrate these themes and the write-up of results. These are presented in the following section.

The researcher and the independent coder undertook independent coding and analysis. There was a high degree of consistency between the two researchers, with only two rounds of discussion required to reach consensus. The overall high level of consistency between coders was estimated to be between 70-80 percent and supports the reliability of the coding system. Please see Appendix N for an overview of coding themes, rules and illustrative examples.

Thematic analysis was conducted for all transcripts (that is, for the most successful and least successful cases) combined and many of the themes were relevant for both the most successful and least successful groups of leaders. The write-up of the results below reflects this approach.

Preliminary analysis of the sample. Preliminary analyses were conducted to identify the most and least successful cases amongst those willing to be interviewed. More than half of the sample (n = 24 of a total N = of 46) opted out of an interview and, as per the Success Case Method, the leaders with the ten highest training transfer scores and the ten lowest scores were invited to participate in an interview. Thus the preliminary analysis was conducted on the sample of leaders who volunteered to participate in an interview as a whole rather than the most and least successful groups separately. However, training transfer scores (that is, the extent to which knowledge from the program was applied in the workplace) did not significantly differ for those participants who volunteered to be interviewed and those who did not.

Descriptive statistics for training transfer scores. Table 39 presents the descriptive statistics for the training transfer scores for the leaders in the ‘most successful’ and ‘least successful’ groups.

Table 39. *Descriptive Statistics for the Training Transfer Scores for Leaders in the 'Most Successful' and 'Least Successful' Groups*

Group	*n*	*M*[i]	*SD*	*CI 95%*	
Most successful	9	7.78	1.48	6.64	8.92
Least successful	7	12.86	0.69	12.22	13.50

[i] Please note that lower scores denotes higher levels of perceived application of learning.

Thematic analysis of semi-structured interviews. This section summarises the emergent themes and sub-themes relevant to the final two research questions:

Research Question 2: *How did the organisational leaders apply the learning from the online program and what results did this application produce?*

Research Question 3: *What are the contextual factors that impact on successful and unsuccessful implementation of action plans and/or application of the learning from the online program?*

Overall, six themes and eighteen sub-themes were identified (see Table 40 below for a summary). Each of these themes is explored in detail below. Verbatim quotes are provided to illustrate the major themes identified. Identification codes were assigned to each leader to protect privacy and core demographic data is provided for each leader to assist with the contextualisation of selected quotations.

Table 40. *Themes and Sub-Themes Used to Code the Semi-Structured Interview Transcripts*

Themes	Sub-themes
1. Information and awareness	a. Providing information to employees b. Increasing awareness and knowledge
2. Providing assistance to access mental health services/assistance	c. Helping an employee who is struggling d. Self-help
3. Positive impact of the online program	e. Encouraging discussions and conversations about mental health with other leaders and staff f. Inspired action and help-seeking g. Organisational changes resulting from the online program
4. Enablers of implementation and use of the material	h. Proactive and committed leadership i. Personal relevance, leaders' own experience with mental health problems (self and others) j. Existing workplace activities and existing knowledge
5. Barriers to implementation and use of the material	k. Difficult subject matter l. Lack of leadership/HR support within organisation m. Lack of opportunity to implement n. Lack of suitability to role o. Organisational and institutional factors and political climate p. Time constraints and competing priorities
6. Stigma and taboo topic of mental health	q. Prevalence and impact of stigma at work r. Helping to overcome the stigma

Theme 1: Providing information and increasing awareness.

Providing information from the online program to employees. Many leaders who applied the learning (that is, the 'most successful' cases) described how they had taken information (for example, statistics and descriptions of the issue of managing mental health problems in the workplace) from the online program and used it to promote the issue of depression and mental health further within their own workplaces.

Several leaders reported using the statistics presented in the online program for staff presentations and newsletters. The use of the material in this way helped substantiate content with credible, workplace-relevant statistics.

> *"What backed it up was having the material there to substantiate what I was saying and so people could actually go and have a look at it and ask questions about it"* (female, 51-60 years old, public sector).

Another leader printed parts of the online program and included hard-copies in resource packs that were distributed in parts of her organisation.

> *"…people would come and have a conversation and then you would be able to give them a little pack of resources but that a lot of people weren't actually taking the resources because they didn't want any body to see them. So we also had them in another folder where it wasn't obvious what was actually in the folder. That was very useful"* (female, 51-60 years old, public sector)

Increasing awareness and knowledge. Most leaders representative of 'most successful' cases discussed an increase in awareness and knowledge as a result of

completing the online program. Several leaders stated that the material in the program had changed the way they viewed issues in the workplace. For some, this increased awareness and knowledge had led to a greater sense of confidence that they could effectively respond to and manage staff with a mental health problem in the future.

> *"Like now when someone calls in sick I do wonder if people are struggling with a mental illness not just a physical one"* (female, 31-40 years old, public sector).
>
> *"I will know if we've got some issues there, and now I can work out how to deal with it"* (female, 31-40 years old, public sector).

Several leaders also reported sharing information from the online program with their teams and colleagues in order to increase knowledge and awareness about depression and mental health in the workplace. One leader described using the material with colleagues to help avoid repeating prior mistakes with staff experiencing a mental health problem.

> *"Now hopefully we can turn that around and say 'now we know what's going on here, how can we help this person get through' and contain the damage that's being caused at the same time by understanding hopefully why and when this is happening"* (male, 51-60 years old, private sector).

Theme 2: Providing assistance to access mental health services and assistance.

Helping an employee who is struggling. Several of the 'most successful' leaders described using the material in the online program to assist a staff member experiencing mental health problems to get professional assistance.

> *"… a staff member of mine who I supervise, who I think I was able to use some of the material in the survey and particularly watching the videos on the program, which I found really helpful. When she was having some difficulties in her home life…So that certainly helped me in terms of encouraging her to go and seek some assistance from our EAP"* (male, 41-50 years old, public sector).

> *"Being able to talk gently to the young woman with fertility problems and steer her, not push her, but give her the options to make the decision that she needed to make for herself. And for her to know that she was fully supported in her choices, I think for me was the most important thing that I've taken from all of that* "(female, 51-60 years old, public sector).

Self-help. A number of the 'most successful' leaders noted the online program had been beneficial in identifying their own mental health needs. One leader gave a powerful account of an unexpected benefit of completing the online program, which was a recognition that he was struggling with undiagnosed and untreated mental health problems himself.

> *"Without kind of knowing it, I was actually in the middle of what was later diagnosed as a depressive episode myself. I was unaware. It was diagnosed as a post-traumatic thing resulting from a car accident that I had two years ago…it*

> *was sitting down and listening to some of the people on the video, and I thought 'oh my god, that's what I'm experiencing"* (male, 51-60 years old, public sector).

Theme 3: Positive impact of the online program.

Encouraging discussions and conversations about mental health with other leaders and staff. One of the most commonly cited positive impacts from completing the online program reported by leaders in the 'most successful' group was that it prompted workplace discussions and conversations with other leaders and managers about employee mental health. For some, these discussions were informal conversations with other leaders, for example:

> *"I've talked to other leaders in my circle about this too. Saying 'hey, there's this program that might just help you to not have a sleepless night'"* (male, 51-60 years old, private sector).

For other leaders, this included sharing information about employee mental health with other managers, including demonstrating the online program, which then *"created the conversations"* (male, 51-60 years old, private sector). One leader remarked on her surprise at the result of doing this in her workplace:

> *"I was amazed that I had about a dozen people come up to me to say 'it was fantastic to see that article in the newsletter, people just don't understand how big a problem it is'. One girl had been self-harming and I almost felt like I had become a guardian angel or something to start the conversation"* (female, 41-50 years old, public sector).

Several leaders described using the material from the online program to start the conversation at work, and how this had led to others at work sharing personal experiences of mental health problems, as one leaders noted:

> *"A lot of people have now actually come out and talked about personal stories now that they didn't actually feel that they could say before"* (female, 51-60 years old, public sector).

Inspired action and help-seeking. Many of the 'most successful' leaders used the online program material to encourage and inspire others to take action regarding their own mental health. Typical of responses in this theme was this quote from a male leader in the public sector:

> *"I had to gently say to her… I'm seeing some things that you're saying and doing that are telling me that you need to talk to someone. I think the biggest things that got her across the line was me saying to her 'go to these people'."* (male, 41-50 years old, public sector).

The leader who recognised his own undiagnosed mental health problems as a result of completing the online program was also inspired to seek treatment after completing the program.

> *"So from that perspective the resources were fantastic in terms of helping me in terms of self-diagnosing and I ended up going to the GP and then the EAP as well"* (male, 41-50 years old, public sector).

In an example demonstrative of the importance of leaders' proactivity, one leader described how she tracked the impact of the program in terms of people taking

further action in her workplace, after handing out hard-copy material from the online program in folders to staff.

> *"I know… when we ran the 3-4 hour suicide prevention workshops that on the attendance sheets I noted that at least 6 people that had come to me had received those folders and they had come to workshops. Other than that I do know that people went on to the EAP, I know of at least 4 that did that"* (female, 51-60 years old, public sector).

Organisational changes resulting from the online program. A small number of the 'most successful' leaders attributed workplace changes to completing the online program. These included the regular provision of information about managing common mental health problems at work and distribution of beyondblue resources. One leader described a discussion with his manager in which changes were made to job roles to include explicit responsibility for employee mental health.

> *"I had a discussion with my manager saying this is something that we really need to be across and we've started writing [responsibility for employee wellbeing] into their job descriptions and performance things, I guess staff welfare and having awareness."* (male, 51-60 years old, private sector).

Theme 4: Enablers of implementation and use of the material.

Proactive and committed leadership. The majority of the leaders in the 'most successful' group discussed the role of organisational leadership, including their own commitment to mental health issues and that of their own manager (often the CEO or Managing Director), in helping to implement the material from the online program.

Several leaders cited their manager's support as key to getting buy-in from other managers and staff, for example:

> *"Embedding it in organisations is fundamental to embedding it into society"* male, 51-60 years old, private sector)
>
> *"We take this stuff seriously… right down from the MD"* (male, 51-60 years old, public sector).

A couple of leaders cited financial and business reasons as the source of their commitment to these issues, which ultimately lead to them deciding to participate in the study and complete the online program. As one leader noted:

> *"I know that happy people lead to happy workplaces and leads to happy customers. That is a truism that I have believed all my life"* (male, 51-60 years old, private sector).

Personal relevance, leaders' own experience with mental health problems (self and others). Many leaders reported having previous experiences with mental health problems. These included experiences of family members, themselves *"I mean I have to put my hand up and say that I've suffered from depression myself"*, female, 51-60 years old, public sector) and/or staff in previous workplaces. Often these prior experiences were cited as motivation to participate in the study and implement the learning from the online program.

> *"People in my past life, I've had staff members who have had major mental health issues so we are used to managing that. It is embedding in this organisation, the importance of awareness and that mental illness is no different to physical illness"* (male, 51-60 years old, private sector).

A small number of leaders who had managed staff with mental health problems in the past revealed they believed that they had not previously managed these issues in the best possible way, and were therefore motivated to develop knowledge and skills. This quote is typical of responses in this theme:

> *"Well we have had a few incidences looking back where these issues of depression and associated things. We just couldn't pin point the issues. So it was a bit enlightening and disturbing to read the literature and the links and say 'oh my god that was such and such'."* (female, 51-60 years old, private sector).

Existing workplace activities and existing knowledge. A small number of leaders reported already having in place a very well developed staff mental heath and wellbeing program. Interestingly, these leaders were all from the public sector. These leaders saw participation in the study as an opportunity to add knowledge and reported the online program material integrated into their existing activities well.

> *"We have quite a well-advanced health and wellbeing program which includes mental health. So we recognise stress down day, RUOK day, and we have had people from Lifeline in that I make mandatory for everyone who supervises people"* (male, 51-60 years old, public sector).

Theme 5: Barriers to implementation and use of the material.

Difficult subject matter. Three leaders representative of the 'least successful cases' cited the difficult nature of the topic of mental health as a barrier to implementing the material learnt in the online program. This was linked to feeling

overwhelmed by the complexity of the topic area and finding it a very difficult subject matter to talk to others about.

> *"It's just such a big issue and there's still so much to do. It's just such a hard subject to talk about"* (female, 41-50 years old, public sector).

Lack of leadership/HR support within organisation. Most leaders classified as 'least successful' cases cited a lack of organisational support for workplace mental health initiatives as a key barrier to implementing the learning from the program. Some cited an inconsistency between what the organisational leaders or HR department said they support and what actually happens when a staff member reported a mental health problem. Some leaders also reported a lack of support from higher level leaders for these issues. Reasons for this include a belief that mental health did not impact on their business, or a reluctance to encourage staff that had a passion for this topic to drive change in their part of the business.

> *"So even though the policy is there and on paper it looks like we're ticking the boxes, there is a disconnect between the policy and what actually happens"* (female, 51-60 years old, public sector).

All leaders agreed support from the top-down organisational support on workplace mental health issues was critical to successful implementation and change.

> *"It has to be something that is led from the top down and buy-in from middle management is crucial. At the moment we don't have that"* (female, 41-50 years old, public sector).

Lack of opportunity. Several leaders in the 'least successful' group reported not having had a need to implement the material learnt from the program because they have not had a staff member struggling with mental health problems since they completed the program.

> *"I just don't think I had the immediate need. I think if I had had an issue or incident then I think I would have used it but in the timeframe that lapsed between the two I probably just didn't feel like I had a need to get additional information or go back and update understanding from the first time. Which is guess is a good thing in some ways"* (male, 41-50 years old, private sector).

Lack of suitability to role. A small number of leaders in the least successful group cited their job role and scope of responsibility as a key barrier to implementation. These individuals were not currently in roles that had staff management responsibility (they had been at the time of signing up to participate in the study). For a couple this was due to a change in role during the course of the current study; for another, she reflected on whether, given her role, it was actually appropriate for her to have originally signed-up to participate in the study.

> *"…I was probably struggling to come up with actions that I felt would have been within my scope of role…I'm not really in a position in this role as a leader here"* (female, 31-40 years old, public sector).

Organisational and institutional factors, and political climate. Several organisational and political factors were cited by 'least successful case' leaders as barriers to implementing the online program material. In the public sector, these included the impact of changing political priorities and budget implications in an

election year, change in government policy and staff redundancies. Leaders discussed the difficulties of implementing workplace mental health initiatives that are not seen as 'core business' during periods of corporate and political uncertainty.

> *"It's budget time, agencies have got other priorities that they must attend to. But when the time is right they will look at it again. I'm very hopeful of that. There's just lots of political things that happening, like redundancies and cut backs, you've got to get your house in order first"* (male, 41-50 years old, public sector).

Leaders employed in the private sector were more likely to highlight their organisation's readiness (or lack of readiness) to tackle issues related to mental health as being a major barrier. As one leader noted:

> *"It's horrific, I'm almost 60 and I've managed lots of people over the years and I've never, ever been trained in this. I've been trained to my eyeballs in all sorts of things, but no one has ever addressed these issues, which are so fundamental to day to day reactions to the environment around us. It's appalling"* (male, 51-60 years old, private sector).

Leaders indicated that organisations required fundamental cultural change before they would be 'ready' to address employee mental health. For example, one leader highlighted the gaps in managers' basic skills and knowledge related to mental health. As such, it may be arguable that organisations are not in a position to implement 'higher-order' skill development (for example, how to manage employees with depression).

> *"We do the basic level of operator training but there is very little supervisor training. The supervisor training that we do is about operations so how to supervise mining operators. There hasn't been any modules on communication, negotiation, let alone on bullying or workplace harassment"* (male, 41-50 years old, private sector).

Time constraints and competing priorities. Many leaders from the least successful group cited time pressures and competing priorities as key reasons they were not able to implement the learning from the online program. One leader said he simply forgot to implement his action plan because other priorities arose. Many discussed the high-pressured nature of their role and lack of time available to focus on 'non-essential' issues.

> *"I guess that if I'm a typical example, it's just that other things happen and get in the way"* (male, 51-60 years old, private sector).

Theme 6: Stigma and taboo topic of mental health.

Prevalence and impact of stigma at work. All leaders in both the 'most' and 'least' successful groups discussed the prevalence of stigma related to mental health problems and its impact in the workplace. Several leaders reported that stigma prevented employees with a mental health problem asking for help. The most commonly cited reasons for this was the perception that having a mental health problem was a sign of weakness and may result in that staff member not being considered appropriate for a promotion. Several leaders reflected on a perceived double standard within their organisation where leaders talked publically about being

supportive of employees with a mental health problem, but often expressed a different attitude behind closed doors.

> *"But then in the next breath it's not necessarily about that person, but about someone else it's 'oh well how long can we afford to carry that person in that state, maybe they need to go offline or maybe we don't consider them for future positions'. I'm not sure I'd call it a double standard but it's certainly a conflicted view"* (male, 41-50 years old, public sector).

A small number of leaders viewed ignorance and lack of education about mental health problems to be the source of prevalent stigmatised attitudes. They cited this as a motivator to address this issue within their workplace and sign-up to participate in the evaluation study.

> *"…Education is really important. Unless you've been exposed to it before, you don't have any idea. And these guys and gals haven't been exposed to it and don't know it exists"* (male, 51-60 years old, private sector).

Helping to overcome stigma. Many of leaders discussed that an important benefit of completing the online program was that it had assisted them to break down stigma related to mental health problems within their workplace. This was true for leaders in both the 'successful' and 'least successful' groups. *"I think that this type of thing will draw attention to the fact that you can still be a functioning person in society but that you have this as well"* (female, 41-50 years old, not-for-profit sector).

Leaders suggested this was for two key reasons. First, it provided them with statistics and facts about managing mental health at work that could be used in presentations

and communications with staff. Second, the material in the program prompted workplace conversations with colleagues and other managers. This sent a message that it is acceptable to discuss these issues at work and prompted others to discuss their own experiences.

> *"It has certainly raised the discussion where it is now actually a topic that people can talk about… They feel a little bit more empowered to assist*" (female, 41-50 years old, not-for-profit sector).

Conclusion

The first section of this chapter discussed the method used to collect and analyse the qualitative semi-structured interview data in the evaluation study. Six themes and eighteen sub-themes were identified and illustrated. The qualitative findings from this study have extended the quantitative findings by demonstrating how the 'most successful' organisational leaders applied the learning from the online program. These included providing information to employees with mental health problems, using the material to start conversations with other leaders about the importance of addressing these issues at work, making changes within the workplace context and, using the material to get professional help themselves. This analysis also revealed the individual and contextual factors that either enabled or prevented the application of new learning in the organisational environment. Enablers included the commitment of leaders, leader's own experience of, and exposure to, mental health problems and existing workplace mental health activities that complimented the material in the online program. Barriers to learning application for those in the 'least successful' group included time constraints and competing demands, organisational factors and the political climate, lack of leader support and the difficult nature of the subject matter.

Interestingly, organisational barriers appeared to differ amongst those leaders employed in the public sector compared to those in the private sector. Leaders in the public sector were more impacted by political and government changes and leaders in the private sector were more likely to report the lack of organisational readiness for this sort of material being a major barrier. Most participants commented on the prevalence and impact of stigma as a barrier preventing these issues to be addressed at work, and also the potential of the material to overcome this barrier.

The next chapter will consolidate the findings of the training needs analysis and both the qualitative and quantitate analyses comprising the evaluation of the online program. A discussion of the implications of these findings for practice, the major limitations of this study, including of the success case method, and recommendations for further research will also be presented in the next chapter.

Chapter 10: Discussion and Conclusion

Introduction

In this final chapter, the findings from the training needs analysis and the mixed methods evaluation study are drawn together. Three key areas arising from the quantitative and qualitative evaluation findings are discussed. The first is an overview of the individual characteristics associated with higher levels of stigma at baseline and what might explain these. The second area discussed is the effects and impacts of a soundly designed online program, drawing on the quantitative and qualitative data. The third are is the organisational and individual factors that influence the application of learning from the online program back into the workplace, that is, training transfer. The practical implications of the findings are then outlined. Following this, the strengths and the limitations of both studies are highlighted. Finally, the chapter concludes by proposing potential directions that could usefully be pursued in future research.

The aim of the present study was to investigate whether a sustained change in stigma and in the mental health literacy (knowledge about depression) of leaders in relation to managing depression in the workplace could be achieved as a result of completing the online program. A secondary purpose was to show that any change in stigma and knowledge led, in turn, to behavioural change. In other words, the study aimed to show that leaders were able to apply their learning back into the workplace, so that it could eventually be embedded within the culture of their organisations. The program succeeded in achieving a stigma reduction effect and this effect was sustained over time. Both individual and contextual factors influenced the extent to

which leaders were able to apply their learning in the workplace. Taken together, these findings, along with those from the training needs analysis, not only make a significant contribution to research on workplace stigma reduction, but also demonstrate a comprehensive and rigorous approach to the evaluation of mental health programs 'in the field'.

Discussion of Findings

Personal characteristics of leaders with higher rates of stigma. The evaluation study proposed that men, older leaders, leaders without a tertiary education, leaders employed in the private sector and leaders without a personal experience of depression would have higher levels of stigma at baseline. The results indicated higher rates of stigma for men, leaders employed in the private sector and those without a prior experience of depression. The effect sizes for male leaders and those without experience of depression were moderate, and the effect size for sector was small. No differences for stigma levels at baseline detected for education and age were found.

This pattern of results is consistent with the findings obtained in the training needs analysis. In the training needs analysis, ratings of confidence to effectively support the management of an employee with depression were split by these same personal characteristics. This analysis revealed male leaders, those in the private sector and those without an experience of depression reported feeling less confident. Again, there was no difference when the data was split by education and age. In addition, these same categories of respondents (male, private sector and no prior experience of depression) rated all of the specific skills and knowledge related to managing workplace mental health as less important than did female leaders, those in the public sector and those who had experienced depression.

These findings for gender, sector and personal experience are also consistent with the depression stigma literature outlined in Chapter 3 (Angermeyer & Dietrich, 2006; K. Griffiths et al., 2008; A. Martin, 2010; Swami, 2012). This suggests that higher levels of depression stigma are found in men, those with no personal experience of depression and managers working in the private sector.

Based on the literature, the explanation for each group's higher rate of stigma is likely to differ from one another and each will be briefly discussed below. It has been argued (Oliffe & Han, 2013; Swami, 2012) that dominant gender role ideologies shape attitudes towards mental health (and health, more generally) and that mental illness is inconsistent with notions of hegemonic masculinity, that emphasise toughness, strength and not showing vulnerability or asking for help. It is proposed that this is the reason that men report higher rates of stigma. This is particularly relevant in a study targeting organisational leaders, as it has been argued that these traditional notions of masculinity are particularly evident in men in leadership roles (Wajcman, 1998).

The Unitary Theory of Stigma (Haghighat, 2001) outlined in Chapter 3 can be used to explain the higher rates of stigma found in the evaluation study among leaders employed in the private sector. This theory argues that self-interest, particularly expressed in terms of economic exploitation, drives the stigmatisation process. Haghighat (2001) argues that stigma is likely to be higher in competitive environments, and that this relationship is moderated by the ease of availability of resources. It could be argued that the private sector, which is fundamentally driven to deliver the highest possible profits to shareholders, compared to the public sector (which is tasked with the administration and implementation of government policy), is more likely to be experienced as a competitive work environment and reflect an

approach to leadership predicated on competitive, rather than collaborative, relationships with peers and direct reports. Therefore, based on the Unitary Theory of Stigma, higher rates of stigma in the private sector would be expected. The findings from the qualitative part of this study highlight further differences between the private and public sectors that will be discussed later in this chapter.

As was detailed in Chapter 3, there is a strong and consistent finding in the literature that those who do not have a personal experience with depression, or have close friends or family members with depression, are more likely to hold stigmatising views about people with depression (Angermeyer & Dietrich, 2006; Couture & Penn, 2006; A. Martin, 2010). This was supported in the evaluation study. Having a personal experience (or coming into contact with those who do) provides a more accurate understanding of the nature of the illness, the impact of it and what those who experience it are capable of. This understanding counters and challenges the commonly held community stigmas about people with depression and would, therefore, be expected to be associated with lower levels of stigma.

Based on previous literature, higher levels of stigma were also predicted among those participants who were older and those with lower levels of education. However, results did not support these predictions. While this finding is inconsistent with the literature (Angermeyer & Dietrich, 2006; K. Griffiths et al., 2008; A. Martin, 2010), an examination of the sample in the evaluation study provides an explanation for these results. There was little variation in the sample on these two characteristics. Participants were highly educated, with the vast majority holding tertiary qualifications, and most were middle aged or older. This profile is not surprising given the target population was organisational leaders.

Overall the above findings related to those groups of leaders with higher levels of stigma, has practical implications for how online programs, such as the one evaluated in the current study, are targeted and promoted to specific segments of the population. These implications will be discussed later in this chapter.

The effects and impacts of the online workplace mental health program.

Main effects relating to stigma reduction and mental health literacy/knowledge. Overall, the level of stigma related to depression reduced as a result of leaders completing the online workplace mental health program, with a moderate effect size. This is a particularly positive result, as effect sizes in stigma reduction and workplace mental health research conducted 'in the field', such as the evaluation study, are generally small (Chan et al., 2009; Corrigan et al., 2012; Pinfold et al., 2003; Tan et al., 2014). Both Corrigan et al. (2012) and Griffiths, Carron-Arthur, Parsons and Reid (2014) conducted a meta-analysis of the effects of stigma reduction approaches. They found that the effect sizes for education and contact-based stigma reduction approaches were consistently small. One explanation for a stronger effect size achieved in the evaluation study versus those that were included in these meta-analyses is that the program in the evaluation study was targeted to a specific population. Griffiths et al. (2014) concluded that a more targeted approach may yield better effect sizes.

As outlined in Chapter 3, social psychologists have made an empirically validated distinction among three components of the stigmatisation process: the socially shared *cognitive* representation of the stigmatised group, the negative *affective* reaction to that group and the *behaviour* or actions directed to that group (Corrigan et al., 2010; Ottati et al., 2005; Wolkenstein & Meyer, 2009). To further test the reduction in stigma as a result of completing the online program in the evaluation

study, the impact of the program on each of these three components of stigma was examined. Results showed a reduction in the affective and behavioural components of stigma, but not the cognitive component.

In addition to the above, and contrary to prediction, the online program did not improve knowledge about depression. Given there was not a significant reduction in the cognitive component of stigma, which is a similar construct to knowledge, or 'mental health literacy' (Finkelstein & Lapshin, 2006) this result is not surprising. However, the online program did not improve leaders' desire for social distance towards someone with depression. As this construct is similar to the behavioural component of stigma, it is inconsistent with the results outlined above.

Several researchers (Haghighat, 2001; A. Martin, 2010) argue that the design of stigma reduction programs should differentiate among the three components of stigma and that different elements of a program may impact on, or reduce, different components of stigma. This recommendation was reflected in the design of the online workplace mental health program evaluated in the current study. An examination of the content of the online program may assist in explaining the above pattern of results.

Video-clips of real leaders were included at the start of the online program. These provided powerful and emotional portrayals of the experience of depression and suicide in the workplace. The impact of these video-clips was commented on by several of the leaders interviewed as part of the evaluation study, with one stating that watching the videos prompted him to seek professional help for his own undiagnosed depression and posttraumatic stress disorder. Appendix O, which includes an outline of the most viewed sections of the program, shows that the videos were among the most popular parts of the program. The inclusion of these videos was designed to be a 'contact' intervention and they were structured in a similar way to other video-based

contact approaches (Chan et al., 2009; Corrigan et al., 2012; Jorm et al., 2010). Stigma reduction programs of this type are designed to impact on the negative emotional reaction to people with a mental illness, that is, the affective component of stigma (Martin, 2010). They are aimed at assisting people to feel more comfortable and develop empathy towards others experiencing depression. Therefore, it is not surprising that a reduction in the affective component of stigma was observed, as a result of leaders completing the online program. In this context, a reduction in the desire for social distance would have also been expected. This was not an outcome of the study. Perhaps one explanation for this surprising result is social desirability, that is, the tendency for people to say what they believe conforms to cultural norms, even if it is different to what they might otherwise report is their 'real belief' (Corrigan & Shapiro, 2010). Given the sample of leaders in the evaluation study was very knowledgeable about depression at baseline (see below for further discussion of this), it could be argued that they were also 'knowledgeable' about what would be considered socially acceptable responses to the social distance scale. It could further be argued that the Social Distance Scale outlines more explicit scenarios related to people with depression (for example, "*Have 'John' marry into your family*"), compared to the more subtle survey items in the evaluation study designed to measure the behavioural component of stigma, for example, "*I would avoid talking to an employee with depression so I don't have to deal with their problems*". The impact of social desirability on the results of this study will be discussed further, in the strengths and limitations section of this chapter.

The online program also included a strong emphasis on taking action and leaders behaving differently in the workplace. For example, participants were asked to commit to a series of practical actions to be carried out in the months after completing

the program, through the development of the action plans. The language in the program was also action-oriented, for example, there was a section called '*Taking Action*' and phrases like '*set goals and deadlines to create a more mentally healthy workplace*'. It could further be argued that this emphasis on behaviour (that is, leaders actually *doing* something differently as a result of completing the program) would impact on, or improve, the behaviours towards employees with depression (that is, the behavioural component of stigma).

In contrast to the tailoring of the design of the program to the affective and behavioural components of stigma by beyondblue, there was less emphasis on traditional mental health literacy and 'psychoeducational' messages in the online program. The reason for this was largely shaped by the goals of the program as outlined by beyondblue (who provided financial support for its development), as they had existing online programs aimed at educating users about the nature and treatment of depression, and other common mental health problems. While the knowledge component of workplace mental health was recommended from the results of the training needs analysis, it was not included in the final design. In this context, failure to find a reduction in the cognitive element of stigma or depression knowledge as a result of completing the online program is, therefore, perhaps not surprising. While the research partnership with a mental health charity in this study was a considerable strength of the study, it also posed some challenges. These will be discussed later in this chapter.

In summary, based on the tri-component model of depression-related stigma, a main effect for cognitive stigma and depression knowledge was predicted but not supported by the findings. An examination of the online program content provides an explanation for the pattern of results obtained. This argument is further supported by

an analysis of the program content from several studies that reported an improvement in knowledge. For example, Finkelstein and Lapshin (2006) found an increase in knowledge after completing a program which included considerable material on the causes, prevalence, symptoms, diagnosis, treatment and prognosis of common mental health problems. Further, Billings et al. (2008) also demonstrated an increase in knowledge from a program that included a substantial psycho-educational component.

Another possible explanation for this pattern of results is that, as implied above, the sample of leaders included in the evaluation study had a high baseline level of knowledge about depression. Leaders who were more knowledgeable may also have been more motivated to participate in a study of this nature than those who were less knowledgeable. Given the high percentage of participants with a personal experience of depression, it could be argued that this experience led to greater knowledge and insight, and therefore, greater motivation to complete the program.

A focus on changes in behaviour, in the context of workplace mental health and stigma, are likely to be more meaningful in practical terms than attitudinal or knowledge changes. This is because discriminatory behaviour has a greater detrimental impact on employees with depression; for example, preventing promotion or even resulting in unemployment (Lasalvia et al., 2013). Moreover, organisations are generally more oriented towards identifying useful actions or behaviours, than simply having employees become more knowledgeable in a theoretical way. Behavioural outcomes can be viewed as more relevant contributions, more motivating and a more worthwhile focus. Cognitive and affective domains are often seen as a platform only for the key goal of behavioural change.

The maintenance of the main effects. The changes in stigma, overall, and in the affective and behavioural components of stigma, as outlined above, were sustained at 6-months after leaders had completed the online program. It is worth noting that, as highlighted in the literature review, very few evaluations of stigma reduction programs include a measure of sustained change. Those few studies that have done so, for example, Jorm et al. (2010), have achieved a similar finding to that in the evaluation study.

This finding of sustained change provides support for part of the first overarching aim of the evaluation study, that is, to demonstrate a sustained change in stigma and mental health literacy of leaders in relation to managing depression in the workplace as a result of completing the online program. Therefore, this finding makes an important contribution to the current literature in this field.

There are three key explanations for this finding of sustained change. First, as argued earlier in this chapter, the content of this program had a emphasis on action, that is, leaders doing something differently as a result of completing it. This was heavily influenced by the partnership with a mental health charity in the design of the program. They were motivated to fund the design of a program that was practical and instantly implementable in workplaces. Leaders completing the program were primed to take action. The clearest example of this was the inclusion of the action plans, which was the fifth most viewed section of the resource (see Appendix O), ensuring leaders were clear on the actions they needed to take in their workplaces. Foxon (1994) has argued that creating the cognitive link between the program content and the leaders' workplace increased the likelihood of training transfer.

Second, the inclusion of a training needs analysis to inform the development of the online program ensured that the content was highly relevant to leaders and tailored

to their specific requirements. This was confirmed by the high ratings of the relevance of the program content among the experimental group and high levels of pre-training motivation. The training transfer literature reviewed earlier in this thesis (Cheng & Hampson, 2008) suggests that these two factors would have increased the likelihood that learning was applied in the workplace and that, ultimately, these benefits would be sustained. As outlined in Chapter 4, many organisations in Australia are offering their line managers and staff access to face-to-face training programs, such as the beyondblue National Workplace Program and Mental Health First Aid. It could be argued that these programs would not be perceived as being as relevant to the role of leaders as a program such as this online program. This perceived relevance is argued to have directly contributed to the demonstrated impact of this program. Several leaders who participated in the qualitative interviews reported using the online program as a tool to engage others, in their role as leaders, during meetings on the topics of workplace mental health. This benefit would not have been realised had the program been delivered by a trainer external to the organisation face-to-face.

The third explanation for the sustained change in stigma observed from the online program was highlighted in the qualitative data. A small number of leaders reported that they used the material in the program to start a conversation regarding workplace mental health with other leaders in their organisation. In some cases this led to others disclosing their own experiences of depression or other mental health problems. It could be argued that this resulted in a ‘spontaneous’ contact-based stigma reduction intervention. The literature reviewed in Chapter 3 supports ‘contact’ as being the approach that is likely to have the greatest impact.

The reported application of learning from the online program and its impact. The qualitative semi-structured interviews of 'successful' cases (that is, those that were most 'successful' at applying the learning from the program) revealed a number of key examples of how leaders had applied the learning from the online workplace mental health program, and the impact of this application. Interestingly, several of the 'least successful' cases (that is, those that were least 'successful' at applying the learning from the program) also reported similar applications of the material and impacts from the program.

Most of the 'successful' and even several of the 'least successful' interviewees reported using the material in the program as a starting point for discussion and conversations in the workplace with others, including staff they managed and other leaders they worked with. It could be argued that these leaders' behaviour reflected a 'group' organisational culture type (as outlined in Chapter 4) that has been shown to be more supportive of employee mental health and wellbeing than other culture types (Marchand et al., 2013). Several leaders reported using the material as a prompt to encourage staff that were experiencing mental health problems to seek professional help, either through EAP or via a GP. This finding is consistent with the recommendation from Barney et al. (2009) that because stigma in the workplace is a barrier for employees feeling willing to seek professional help, it is important that programs include accurate information about what help is available. It is also consistent with results from the training needs analysis. Leaders from the study, when asked about their role in relation to workplace mental health, most commonly cited 'providing support to employees with a mental health problem'. Perhaps not surprisingly, given that the majority of leaders reported managing someone at work with a mental health problem.

One of the most commonly cited positive impacts from completing the online program was that it prompted leaders to share the material with other leaders in their organisation which, in turn, started broader conversations in the workplace on these topics. This is consistent with the data illustrating the most viewed section of the program (see Appendix O). For example, tips on how to 'start the conversation', the 'approaching a colleague' section on the impact map tool and the second most common action listed on action plans was 'speaking about mental illness at work'. Several of the leaders interviewed talked about the content of the program helping them to overcome the stigma in their workplace. This is consistent with the quantitative results showing that exposure to the material in the program resulted in a sustained reduction in stigma. The material in the program gave leaders a 'socially acceptable' way to discuss these issues in a stigmatised work environment.

Many leaders reported using the online program material to increase knowledge and awareness at work about the importance of these issues. For example, several leaders stated that the material in the program had changed the way they viewed issues in the workplace. For some, this increased awareness and knowledge had led to a greater sense of confidence that they could effectively respond to and manage staff with a mental health problem in the future. This is an interesting qualitative finding, since there were no main effects demonstrated for knowledge as a result of completing the program, despite this being a strong theme in the qualitative interviews. As mentioned earlier, this sample was highly knowledgeable about depression at baseline so, it could be argued, they were motivated to sign-up for the study. It would seem from the qualitative results that they then used the information in the program to increase knowledge of those who were less knowledgeable in their workplace. This potential 'vicarious' knowledge increase impact was not measured in

the evaluation study and provides a useful direction for future research in the field. One possible explanation for this finding is that the online program gave leaders a language in relation to depression as well as some practical examples that they would use in their discussions with others. So even though they were knowledgeable prior to participating in the study, the online program equipped them with the tools to share this knowledge. Knowing something is quite different from feeling competent and equipped to share what is known.

These findings consolidate the literature from Chapter 3 and Chapter 4, regarding the link between mental heath literacy (that is, knowledge) and stigma, and the importance of leaders as role models and shapers of organisational culture. Several of the leaders interviewed as part of this study described acting as role models at work amongst their peers. Through role modelling the positive attitudes and behaviour required to support employees with depression, it could be argued these leaders inspired other leaders to act in the same way and contributed to a climate at work where constructive conversations about depression, early warning signs and referral pathways to effective treatments could occur. This is consistent with the principles of Social Learning Theory (Bandura, 1977) outlined in Chapter 4. This theory states that ‘role modelling’ can take place without any specific reinforcement and that exposure itself is enough for the behaviour to be learned (Gross, 1992).

The final application and impact reported by a small number of the leaders during interviews was that they had made organisational changes as a result of the program, for example, including accountability for employee mental health in the job descriptions of their direct reports. While only reported by a small number of leaders, it is nevertheless an important finding. Changes to job descriptions ensure there is a point of accountability for employee mental health that will last beyond the duration

of employment of that particular leader. This result provides some support for the second aim of the evaluation study, that is, that the effects and impacts of the online program will eventually be embedded in organisational culture.

This finding underscores the importance of targeting leaders with a program like this, as it is leaders who shape workplace culture (Crethar et al., 2009; Dellve et al., 2007; Giberson et al., 2009; Hall et al., 2010; Hambrick & Mason, 1984). As outlined in Chapter 4, these results also support the assertion that it is also leaders who play a key role in supporting an increase in mental health literacy and reducing stigma, and therefore reducing costs, in their organisations (Gelb & Corrigan, 2008). For these reasons, programs that support leaders and equip them with ways they can make positive contributions can have wide ranging impacts.

Factors influencing training transfer As outlined in Chapter 5, several studies (Blume et al., 2010; Cheng & Hampson, 2008; Holton et al., 2007; Hutchins, 2009) have confirmed a range of factors that have been established as predictors of training transfer, that is, the application of learning from a training program back into the workplace. These broadly fit into the following three categories: learner characteristics, program design and factors related to the work environment.

Along with the effects and impacts of the online workplace mental heath program, the evaluation study was designed to investigate the influence of these three factors on the extent to which leaders applied the learning from the program back in their workplace. Results from both the quantitative and qualitative exploration of the three research questions in this study will be integrated, along with relevant findings from the training needs analysis, in the discussion below.

The influence of learner characteristics on training transfer. The impact of several learner characteristics on training transfer was explored as part of the

evaluation study. These were leaders' knowledge about depression, levels of stigma, gender, age, education level, sector, personal experience with depression, pre-training motivation and perceptions of relevance of the online program content to their work role.

Quantitative analysis of the above variables did not reveal any significant relationships with the likelihood of a leader applying the learning from the program back in their workplace. Based on the literature reviewed in this thesis, the two most significant learner characteristics that impact on training transfer are pre-training motivation and perceptions of training relevance (Brinkerhoff & Apking, 2001; Cheng & Hampson, 2008; Chiaburu & Marinova, 2005; Holton et al., 2007). It is therefore surprising that no significant results were found for these variables in the evaluation study. One explanation for this could be related to recruitment, as participants volunteered for the study after seeing information about it online or via email. Participants were not recruited through their workplace, that is, asked by their manager/employer to complete the online program. Therefore, it could be reasonably argued that they were perhaps more motivated to participate than leaders who had been asked to complete it through work. In other words, they did not have any direct or perceived pressure from their workplaces to participate. The high average pre-training motivation scores support this argument. It could also be asserted that the leaders who made the decision to volunteer for this study had already assessed that the content of the program was going to be relevant to their work role, and that their decision to participate was based on this assessment. In addition, the conduct of a training needs analysis with leaders as part of this study ensured that the content of the program was tailored to their needs and relevant to their role. This was confirmed

by the high average ratings of the relevance of the program content by the experimental group.

While quantitative results did not support a relationship between prior experience of depression and the likelihood that leaders would apply the learning from the program, the qualitative data did suggest a relationship. Many leaders who were interviewed disclosed an experience of depression, either their own, or that of family members, friends or staff in previous workplaces. Often these prior experiences were cited as a source of motivation to participate in the study and to implement the learning from the program. A small number of leaders who had managed staff with mental health problems in the past revealed they had not previously managed these issues in the best possible way, and were therefore motivated to develop their knowledge and skills. This finding is consistent with the 'secondary influences' of training transfer outlined by Holton et al. (2007). They argued that the learner's belief that the application of the learning will improve performance increases the chance of training transfer. It could be argued that a past experience of not managing depression at work effectively will increase the perception that the application of the new knowledge will increase their ability to manage these situations effectively in the future.

This apparent discrepancy between the results from the qualitative and quantitative data is perhaps not surprising. Quantitative data were collected first. The qualitative interviews were designed to explore, in the more detail, the application of the material from the program. Several of the interviewees reported recalling further information during the interviews, which they had forgotten about while completing the surveys.

The influence of program design on training transfer. The impact of the design of the online program on training transfer was explored as part of the evaluation study. This was measured by a 'usability' question in the post-survey. Quantitative analysis of usability did not reveal a significant relationship between reported usability and training transfer (although the result approached statistical significance). However, the calculation of the effect size revealed a moderate effect for the usability of the program, thus suggesting that perceived usability did influence training transfer in the evaluation study. This is confirmed by the qualitative data, with leaders commenting on how the program was intuitive and comfortable to use. Several leaders reported running through the program with others in meetings, to show colleagues the tools that were available and to start the conversation about workplace mental health. The parts of the program that were most commonly cited as useful were the tools (for example, the cost calculator and action plan) and the videos of leaders. As previously reported, the design of these was informed by the results of the training needs analysis. Google Analytic data, provided by beyondblue (see Appendix O), confirmed that the most viewed parts of the program were the interactive tools and videos of leaders sharing their personal stories of depression (rather than the static information and research summaries). This highlights the importance of conducting a training needs analysis to inform program design. The results of the training needs analysis, outlined in Chapter 6, revealed that the case studies and video clips of real leaders were the two elements of an online program most important to leaders. As will be discussed later in this chapter, future research should be conducted to determine which section of the program resulted in the most significant and meaningful effects. This will assist with the future refinement of program content.

The influence of the work environment on training transfer. The impact of the broader work environment on training transfer was also explored. Three elements of the work environment were measured in the online surveys. These were organisational mental health strategy, workplace disclosure norms about depression and manager support for the implementation of the learning and for workplace mental health more broadly.

Quantitative analysis of these three variables did not reveal any significant results. However, the qualitative analysis of the themes from interviews suggested a strong relationship between the work environment, the broader context and the extent to which leaders were able to implement the learning from the program.

The first of these themes was the impact of existing workplace activities and strategies related to workplace mental health. A small number of the 'successful' leaders reported already having in place a very well developed staff mental heath and wellbeing program. These leaders saw participation in the current study as an opportunity to add to their knowledge and reported their learning from the online program integrated into their existing activities well. In contrast, several of the 'least successful' leaders identified multiple organisational and political factors that were barriers to them implementing the learning. This finding is consistent with Martin, Woods, and Dawkins (2014) qualitative study of manager's experiences supervising an employee with mental health issues. Many of their participants cited organisational readiness and capability in this area as being a barrier to supporting an employee who was struggling. It can also be seen as consistent with Holton et al's (2007) 'environmental factors' that influence the application of learning, such as work group's willingness to change and the organisational rewards and sanctions system. In the evaluation study, these barriers included the impact of changing political priorities

and budget implications in an election year, change in government policy and wide-scale redundancies. Several of the ‘least successful’ leaders also highlighted their organisation’s low levels of readiness to tackle issues related to mental health and how difficult this made it for them to implement learning from the program in their workplace.

When the qualitative data outlined above was split according to employment sector, a clear difference in the organisational factors that influenced training transfer was found between the public and private sectors. Changes in government and political priorities was the key environmental influencer in the public sector, while lack of organisational readiness was the key influencing factor in the private sector. While this is perhaps not surprising given the fundamentally different goals in the private and public sectors (that is, profit-driven versus administration of government policy) this finding has important implications for design and targeting of workplace mental health programs. These will be discussed later in this chapter.

The second work environment theme impacting on training transfer that was supported by the qualitative data, was the perceived levels of stigma in the workplace and employee willingness to discuss their own mental health. Three leaders representative of the ‘least successful cases’ cited the stigmatised nature of depression as a barrier to implementing the learning from the program. This was linked to them feeling overwhelmed by the complexity of the topic area and finding it a very difficult subject matter to talk to others about at work. Several leaders reported that stigma in their workplace prevented employees with a mental health problem from coming forward and asking for help. The most commonly cited reasons for this was the perception that having a mental health problem was a sign of weakness and may result in that staff member not being considered appropriate for a promotion. This finding

regarding stigma in the workplace is consistent with the literature reviewed in Chapter 3 (Carli, 2004; Cleary et al., 2008; Gelb & Corrigan, 2008), and underscores the critical importance of evidence-based stigma reduction programs being implemented in Australian organisations. Several leaders reflected on a perceived double standard within their organisation where other leaders talked publically about being supportive of employees with a mental health problem, but often expressed a different attitude behind closed doors. In other words, organisations with the greatest need also had the most significant barriers.

The final, and related, work environment factor that influenced training transfer was the support and commitment of other leaders in their workplace. Most 'successful' leaders discussed the role of organisational leadership, including their manager (often the CEO or Managing Director), in helping to implement the material from the online program. This is an important finding as it supports the approach taken in the current study to evaluate a program that is specifically tailored to organisational leaders and is consistent with the work of Holton et al (2007) who argue the importance of manager support in the training transfer process. As argued elsewhere, leaders shape and influence the workplace culture. They act as role models for their peers and staff and are able to embed learning from programs like this into organisational policies and practices to ensure sustainability. Similarly, several of the 'least successful' leaders who were interviewed cited a lack of organisational support for workplace mental health initiatives as a key barrier to them implementing the learning from the program. Some leaders, particularly those in the private sector, also reported that there was a lack of support from other leaders (particularly those in finance-related roles) for these issues because it was not seen as something that impacted on their business. In addition, they mentioned a reluctance to encourage

staff with a passion for this topic to drive change in their part of the business because it was seen as outside their job role. These sorts of characteristics could be seen to be reflecting a 'rational' organisation culture type as outlined in Chapter 4 (Marchand et al., 2013).

Overall, despite the quantitative analysis showing no significant relationship between work environment and training transfer, the qualitative data suggests otherwise. Three key characteristics of the work environment were reported by leaders as impacting on the application of learning back in their workplace. These results make an important contribution to the literature, as too often the individual factors alone are considered in the implementation and evaluation of workplace mental health programs (Brinkerhoff & Apking, 2001; Foxon, 1994; A LaMontagne et al., 2014; A. Martin, 2010). The examination of the organisational and environmental context in which programs sit are as important as the demonstration of the effectiveness of them (Szeto & Dobson, 2010). Martin, Karanika-Murray, Biron, and Sanderson (In press) argue for a multi-level approach to employee mental health interventions, which include analysis of four levels: the organisational level, workgroup, job and individual level. Behaviour is ultimately a function of both the individual and the environment in which the individual is situated and it is, therefore, the combination of these that make the findings of a study such as the current one powerful in practice.

Implications for Practice

Results of the current research have several important implications for organisational practice and policy. First, several findings suggest that the targeting and tailoring of online workplace mental health programs to specific sub-groups of leaders may be warranted. As leaders that are male, employed in the private sector,

and those without any prior personal experience of depression were all found to have higher stigma in the evaluation study targeting program implementation specifically for these groups may be an effective way to reduce stigma. This could be done by targeting male-dominated industries, such as construction or mining, and ensuring the case study examples in the program include male role models and that promotional materials reflect male preferences for health promotion, for example, utilising a strengths-based approach drawing on masculine ideals of problem-solving (Oliffe & Han, 2013).

Current findings also highlighted different organisational and environmental contextual factors in the public and private sectors that can impede the implementation of learning from online programs such as that evaluated in the current study. This provides further evidence for the need to design programs such as these in ways suited to the specific organisational context in which it is being delivered. For example, given the lack of organisational readiness to tackle these issues highlighted by leaders in the private sector, it may be particularly useful to highlight the economic reasons for focusing on workplace mental health drawing on the growing popularity of workplace mental health return on investment strategies (PriceWaterhouseCoopers, 2014). Whereas, the content of a program such as this one, if delivered in the public sector, could highlight the impact of changing government and political priorities and provide practical strategies to embed learning in public sector organisations in the face of these challenges. K. Griffiths et al. (2014) argue that targeting and tailoring stigma reduction programs to at-risk groups, as outlined above, may provide higher effect sizes than has been obtained by more generic programs.

A second practical implication of the evaluation study is that the time-poor nature of leadership roles means that any workplace mental health programs need to

be kept as brief as is practically possible, as many of the 'least successful' leaders highlighted that lack of time and competing demands were the greatest barrier to training transfer and time barriers was the main reason given for non-completion in the study. Further, results highlight the importance of ensuring that online programs are easy to use and navigate (a finding consistent with that from Finkelstein & Lapshin, 2006) and the content is relevant to the role of leaders. The most practical way to do this is to consult with end users (in this case leaders) on the content and design of the training program. It is recommended that other organisations involved in the education and development of leaders conduct a training needs analysis to inform their program design, to maximise training transfer and, ultimately, increased their impact on the business.

Further, a strength of the current program highlighted in the qualitative interviews was that it was structured in a way that leaders could move through it at their own pace and navigate directly to sections that were more relevant to their immediate needs, rather than having to follow a linear structure. Based on this, it is recommended that this feature of the current program could be further developed in future programs. For example, asking leaders to answer one or two questions about what they are looking for when they enter the program. Then, based on their answers, the material they are first presented with is specially tailored to their needs and circumstances. This 'adaptive release' approach will further increase the relevance and accessibility of program material for time-poor leaders.

The findings in the evaluation study related to the importance of leader commitment to the issue of workplace mental health (as an enabler of the implementation of learning) offers an important additional practical implication for organisations. Many leaders interviewed as part of this study outlined how they had

used the material in the online program to start conversations with other leaders in their workplace. They were able to demonstrate their commitment to the topic, act as role models and opinion leaders to others, and encourage other leaders to demonstrate a similar level of commitment to the issue. The practical tools in the online program (for example, costs calculators, risks assessments and action plans) could be promoted to leaders in workplace with a pre-existing commitment to the mental health of employees (perhaps due to a prior personal experience), as a practical way that they get others in their workplace motivated to take action in this area. This approach draws on the social learning theory literature reviewed as part of this study and would results in a 'trickling down' of leaders' commitment and action (Mayer et al., 2009).

A final practical implication of this research relates to the education and development of organisational leaders. Results of the training needs analysis highlight the identified training needs for leaders in terms of workplace mental health. In addition, the qualitative interviews highlighted a general motivation and interest in this topic from leaders. Given the evaluation study has shown the stigma reduction benefits of a program such as this, there is an opportunity for material such as that in the online program to be incorporated into leadership development programs. This opportunity was illuminated by Martin et al. (2014) who argue the need to integrate workplace mental health content into Masters of Business Administration (MBA) curriculum. The same argument can be made about integrating similar content into in-house organisational leadership development program and the brief, accessible nature of the current program lends itself to this.

Strengths and Limitations of the Current Research

The design of the evaluation study had a number of important strengths. First, it utilised a randomised controlled design (RCT), with the comparison between the

experimental and control groups ensuring that changes observed in the group exposed to the online program could be attributed to the effect of the program. Second, a follow-up data collection point at 6-months was also included in the RCT design which ensured that there was measurement of whether the changes observed as a result of the online program were sustained over time. As outlined in Chapter 4, many evaluations of workplace mental health programs have not included a follow-up measure, thus limiting the conclusions about effectiveness of the program that can be drawn. A third important strength of the evaluation study was that both quantitative and qualitative data was collected, via a 'QUANT→qual design'. This approach has ensured that the strengths of each approach are capitalised and their respective weaknesses are diminished (Andrew & Halcomb, 2007). This approach to study design has supported a more comprehensive understanding of the field of study, compared with using one approach alone. For example, the findings from the quantitative survey data (no change in knowledge about depression but reduced rates of stigma as a result of completing the program) were able to be explored in depth during the semi-structured interviews. These interviews revealed that many of the leaders who participated in the study were using the material from the program to increase the knowledge of others in their workplace, rather than to increase their own knowledge. Without the inclusion of the qualitative data collection this finding would not have been captured. A similar approach to mixed methods sequencing was utilised by Clarke (2002), who also reported results that may have been missed without using a mixed methodology.

The fourth strength of the evaluation study is that it brought together the two disciplines of health and business in order to address a number of consistent limitations in literature and practice designed to tackle the issue of workplace mental

health. For example, the current study evaluated an online program which both addressed the key limitation of scalability and sustainability of the contact-based approach to stigma reduction, and the challenge in implementing programs targeting time-poor leaders who work in demanding roles. It used approaches and language adapted to this particular cohort. A final strength of the evaluation study, was that it was conducted 'in the field' with real leaders. The leaders who participated in the study were expected to complete the online program in their own work environments and it was up to them to implement the learning from the program back into the work environment. While this approach meant that there are potentially other confounding variables that could have impacted on their ability to implement the learning (for example, political imperatives outside of their control), the study was designed in a way that ensured that these variables could be uncovered as part of the qualitative data collection. Ultimately this approach will ensure that the findings from this study, as discussed in the previous section, have significant practical application beyond this research.

Despite these considerable design strengths, there are also several important limitations. Although a strength of the evaluation study was the use of an 'in the field' work sample of leaders, it must be noted that the study employed non-random, convenience sampling. There is a possibility that individual judgement affected people's decision to participate or not, making some members of the target population (leaders) more likely to self-select participation than others (Bryman & Bell, 2007). This was a limitation of the training needs analysis as was highlighted in Chapter 6. As the sample had high levels of depression knowledge at baseline and more leaders than would have been expected (based on population prevalence data) with a previous personal experience of depression, it can not be assumed that results from this study

are generalisable to other samples. Nevertheless, other researchers who employed similar sampling methods found similar skewing in their samples (Billings et al., 2008; Jorm et al., 2010; Kitchener & Jorm, 2004). Although this disadvantage of using convenience samples constrained the generalisability of the findings, their use is relatively cost and time efficient in comparison to probability sampling techniques. While this method is commonly employed in research on topics such as that studied in the evaluation study, future studies could test these hypotheses by employing random sampling techniques.

There are several related research limitations associated with the use of self-report surveys, as were used in the evaluation study. Firstly, social desirability may have impacted on the responses that participants gave on the surveys. The social desirability effect refers to "the tendency on the part of individuals to present themselves in a favourable light, regardless of their true feelings about an issue or topic" (Podsakoff et al., 2003, p. 881). As was the case in the training needs analysis, an answer that is perceived as being socially desirable is more likely to be endorsed than one that is not. Corrigan and Shapiro (2010) have argued that the social desirability bias is particularly prevalent in stigma research. It is possible that people who held negative views about people with depression provided responses reflecting attitudes believed to be socially desirable rather than reflecting their true views. It could also perhaps be argued that those with higher levels of knowledge about mental health (as was the case in the current sample) may be more knowledgeable about what a socially desirable response on the stigma scale was. In order to control for this in future research, it is recommended that a standardised measure of social desirability is used (for example, Haghighat, 2007).

Further, the combination of self-report together with the fact that participants were not blinded to the type of intervention they received, may have introduced bias via the demand characteristics. This refers to an experimental artefact where participants form an interpretation of the experiment's purpose and unconsciously change their behaviour to fit that interpretation (Howell, 1997). Corrigan and Shapiro (2010) argue that this bias can be particularly problematic in studies with pre and post measures, as in the evaluation study. As participants may discern, from the repeated measure, that researchers are expecting a decrease in stigma and an increase in knowledge because of the intervening task. They assert that there are several ways that this can be subverted. Ensuring anonymity in the administration of stigma measures may help, the administration of the surveys online in the current study could have increased participants' perceptions of anonymity (Klein & Cook, 2010). In addition, the use of a randomised control trial study design, as in the evaluation study, can control for social desirability bias as, it could be argued, participants in both groups would have been equally influenced by social desirability.

An additional limitation associated with self-report surveys is that there can be a tendency for participants to try to maintain consistency in their responses to similar questions on multiple self-report surveys (Podsakoff et al., 2003). As argued above, allowing respondents to leave their answers anonymous can help to reduce method bias, as they are less likely to edit their responses to be more socially desirable, lenient, acquiescent and consistent with how they think the researcher wants them to respond (Podsakoff et al., 2003). The evaluation study incorporated negatively worded and reverse-coded items in the survey in an attempt to reduce the potential effects of response pattern biases.

A final limitation of the use of self-report surveys in the evaluation study is that behaviour (that is, training transfer) was determined by self-report rather than observation of actual behaviour. A practical extension for future research, as discussed later in the chapter, may be research designs that measure training transfer through reporting of the leaders' behaviour by managers and colleagues.

A further limitation associated with the measures used in this study, was that the collection of demographic information was limited to gender, age, education, sector and experience of depression. Other characteristics, such as industry type or organisational size, were not collected. This prevented analysis of the data by these characteristics. As previous literature (Hand & Tryssenaar, 2006; Martin, Sanderson, Scott, et al., 2009; Roche et al., 2012; Swami, 2012) has suggested, employees in male-dominated workplaces and smaller sized organisations can be considered more likely to hold higher levels of stigmatised beliefs, this was a limitation to the current study that could be addressed in future research.

While overall the 'in the field' aspect to this study is argued to be a design strength as it maximised the relevance and transferability of results into other workplaces, there was a limitation to this approach. Specifically, partnering with a mental health charity in the design of the program meant that there were some recommendations from the training needs analysis that were not incorporated into the program design[8] (for example, some knowledge and mental health literacy content). Despite this, this study provides a good example of an effective and meaningful partnership between the research and community sectors.

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[8] It should be noted that the reasons for this decision were sound as this content would have duplicated content already contained in other beyondblue online programs.

In the current study, both in the pilot and evaluation studies, surveys were administered online. There are two key limitations of this approach. First, certain populations are less likely to have internet access and to respond to online surveys. There are many organisations, particularly, small to medium businesses, which may not have the wide-spread internet access that is found in larger organisations. However, given the current study was an evaluation of an online program, it was appropriate to align the data collection method with the mode of delivery of the program, that is, online. A second limitation of online surveys is the difficulty in obtaining acceptable response rates, particularly over time (Fricker & Schonlau, 2002). This may have contributed to the declining response rate in the evaluation study over the multiple time points. Several leaders reported that the reminder emails and phone call from the researcher were a useful prompt. It is recommended that this approach be incorporated into future research of this kind. In addition, the impact of building incentives into the online program could also be explored. For example, providing an e-voucher to participate in a webinar given by an expert in workplace mental health for those who complete all surveys. Given leaders reported in the training needs analysis that they wanted access to content experts, this would provide additional motivation to complete online surveys.

In addition to the limitations of the current study related to the quantitative data collection, there are three key limitations regarding qualitative data collection. First, the qualitative data analysis in the evaluation study was research question-driven, meaning that both coders were aware of the research question being explored. This may have resulted in coders overlooking a key theme that may not have been aligned to the pre-determined research questions and, therefore, limiting the breath of the findings. Secondly, Olsen et al. (2011) argue that a qualitative approach such as the

SCM cannot be used to infer causality between contextual factors and business impact, largely because the method is so heavily reliant on participant recall. Coryn et al. (2009) assert that people are not generally good at making accurate causal inferences and, therefore, confirmation bias could be a factor impacting on results in a study such as the current one. However, this limitation was mitigated somewhat by the mixed methods design employed in the evaluation study, in that it was one part of a larger, rigorous program evaluation. It has also been argued (O'Cathain et al., 2014) that the inclusion of qualitative data collection and analysis in evaluation studies of health programs strengthens the value and contribution of the research findings. This means that the SCM findings can be examined alongside those gained from the quantitative data analysis, as was done above. The final limitation of the SCM qualitative approach chosen in the evaluation study is that it is plausible that an explanation for success (or lack of it) among the leaders could have been missed given that all participants were not interviewed in depth. This highlights the need for further research in this field to provide further support for the results in this study.

A further limitation was the lower level of reliability obtained for the cognitive and behavioural sub-scales of the Managerial Stigma Scale. This was unexpected as the reliability of the total scale and other sub-scale was in the acceptable range. In addition, two previous studies that have utilised the same measure (Martin, 2010; Martin, In press) have demonstrated levels of internal consistency in the acceptable range.

A final limitation of the evaluation study was that program exposure was not assessed. This means that it is not known which leaders used which parts of the program. Billings et al. (2008) highlighted a similar limitation of their evaluation of an online mental health program. As highlighted in the qualitative findings in the

current studies, many leaders cited being time-poor and competing workplace priorities as major barriers for completing the online program and implementing the learning. The implications of this limitation for future research are discussed in the next section.

Recommendations for Future Research

The current study examined stigma and mental health literacy related to depression in the workplace. There is an opportunity for future studies to examine the impact of an online workplace mental health program, such as the one evaluated in the current study, on stigma and knowledge related to anxiety disorders. Anxiety disorders are more common than depression in Australia (Slade et al., 2009) and research is only recently emerging regarding the conceptualisation of stigma related to anxiety (Reavley & Jorm, 2011). In addition, depression and anxiety often occur concurrently (Burns & Teesson, 2002) and the treatment and management approaches that have been shown to be effective for employees with depression, are also effective for employees with an anxiety disorder (Deacon & Abramoritz, 2004). As such, an exploration of reduction of the stigma related to depression and anxiety, in the same study, would make a valuable contribution to the literature and organisational practice in this field.

A direct measurement of the impact of the online program on the organisation or other employees was not included in the evaluation study. It would be useful, for example, to know if the direct reports of the organisational leaders who completed the program observed a greater level of support and openness at work about employee mental heath or whether they noticed the implementation of changes to the work environment as a result of the program. This would have the benefit of corroborating the reported impacts by leaders (and countering a potential social desirability bias that

may have impacted on the qualitative findings), and it would also help to develop an understanding of the results that matter the most to employees with depression, compared to the leader's assessment of what matters most to their staff.

This need for future research was further highlighted by leaders in the study who reported using the material from the online program to increase the knowledge and understanding, and reduce the stigma, of others in their workplace. Several leaders in the study endorsed this theme. However, it was not captured in the quantitative data. An additional benefit of collecting data from others working with the leaders is that it could allow further examination of the impact of environmental and contextual factors. These were shown to have an important influence on whether or not leaders were actually able to implement the learning from the online program back into their workplace. However, they were not quantified or corroborated by data collected from others working with the leaders. Martin et al. (In press) assert that the aggregation of individual self-reports of a work environment to reflect group level exposure can reduce the potential for response bias and create a more objective assessment of the work environment. A follow-up quantitative study of this nature to replicate this qualitative finding would be valuable.

As highlighted in the previous section, evaluations are needed of online programs that are targeted to specific groups of leaders with higher levels of stigma, such as men, leaders in the private sector and those without a prior experience of depression. Greater effect sizes could be obtained for such a targeted approach to sigma reduction efforts in the workplace.

A further area for future research would be to explore the impact of the method used to recruit participants on training transfer. If a study such as the current one was conducted through a specific employer who mandated the use of the program to all

their organisational leaders, it would be interesting to see if this improved the representative nature of the study sample (because leaders would not be self-selecting based on a pre-existing interest in the area) and, therefore, increased the impact of the online program (because, as demonstrated by Finketstein & Lapshin (2006) better effects have been obtained for samples with higher stigma at baseline measurement point). And finally, the impact of this changed recruitment strategy on the training transfer of leaders after completing the online program could be investigated. Specifically, an examination of the impact, if any, of their pre-training motivation and perceived relevance of the program content could be conducted.

A final recommendation for future research would be to determine which parts of the program had the most significant impacts on reducing stigma. As argued earlier in this chapter, different parts of the online program are likely to have impacted on the three components of stigma differently. However, this was not possible to measure in the design of the evaluation study. It would be useful to trial three different versions of the online program, each with content tailored to one of the three components of stigma. This would allow a more robust analysis of the underlying mechanism of effect and, therefore, any mediating or causal relationship that exist between variables (for example, as outlined by Weiner 1995, cited in Corrigan & Shapiro, 2010). In addition to the theoretical contribution these results would make to the field, they would also allow a further refinement of program content. For example, if there are particular segments of the program that are the most beneficial in terms of stigma reduction, then these could be enhanced (and other less effective material omitted) to ensure the maximum impact of the program, delivered in the briefest possible way, to time-poor leaders.

Conclusion

The overall aim of the current study was to demonstrate a sustained reduction in stigma and an improvement in mental health literacy among organisational leaders, as a result of completing an online workplace mental health program. The findings demonstrate that, overall, levels of stigma were significantly reduced and that this reduction was sustained over time. While there were no observable improvements in mental health literacy, this was likely to be because participants possessed high levels of depression knowledge at baseline. However, there was evidence that leaders were using the tools and material in the online program to increase the knowledge of peers and staff in their workplace. This finding suggests that the online program could be used in the future as a tool to support leaders who are committed and passionate about workplace mental health, enabling them to effectively role-model and champion these issues across their organisations.

A secondary aim of the current study was to show that the learning from the online program was applied back in the workplace, that is, that training transfer had occurred. The findings from the qualitative analysis, in particular, provided useful evidence for this. Further, this analysis also identified the important environmental and contextual factors that either enabled or hindered this training transfer.

The evaluation study has shown that positive attitudes and high levels of knowledge alone are not sufficient to ensure leaders apply program learning into their workplace. The surrounding work environment, the collective readiness and capability of the organisation to address these issues, the attitudes of others at work, together with the broader political context, all have an important role to play. As does the relevance of program content and the usability of the program itself.

As with all research, several limitations with the pilot and evaluation studies were identified, related to the research design and the data collection methods chosen. Despite these limitations, it was argued that the research methodology chosen was appropriate and robust. A particular strength of the evaluation design was the inclusion of both quantitative and qualitative data collection and analysis. Each approach illuminated useful aspects of the issues under investigation. Combining their respective strengths in the present study ensured a more comprehensive analysis than either method would have yielded alone. As a result of this greater clarity, more far-reaching interventions can be proposed.

The current study has important practical implications, particularly in relation to the targeting and tailoring of programs like these in order to reach a sub-group of leaders with the greatest need for stigma reduction. The usefulness of conducting a training needs analysis to ensure program content is tailored and relevant was argued. The findings also highlight the importance of harnessing the commitment of those leaders who are already motivated to act in this area (most likely due to a personal experience of depression) and utilising them as champions, both for the topic and for relevant organisational change. However, several areas of future research have been identified. These would strengthen what is currently known about the most appropriate ways to embed learning from such programs in an organisational culture and ensure it persists over time.

This thesis has demonstrated that an online workplace mental health program, targeting time-poor leaders, can have a significant and sustained effect on workplace stigma. The findings also show that the organisational context in which leaders work represents a critical factor influencing the ultimate success of any program, such as that evaluated in the current study. Given the significant costs, both personal and

organisational, of untreated depression and the all too common help-seeking barrier of stigma, those holding positions of influence in organisations need to consider the opportunities presented in this thesis to lead evidence-based change.

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Appendices

Appendix A - Training needs analysis survey for organisational leaders

Download the information sheet for participants by clicking here.

The purpose of this short survey is to identify the educational needs of organisational leaders (that is, managers of line managers) in relation to mental health in the workplace. The information from this survey will be used by beyondblue to design an online education package for leaders about mental health in the workplace.

Participation in this survey is entirely voluntary. Completion of the survey will indicate your consent to participate. Your responses will remain confidential and will be completely de-identified. There will be no way of the researchers knowing who completed which survey.

If you would like more information about this survey, please contact Clare Shann, Deputy CEO beyondblue and PhD Candidate (cbshann@utas.edu.au) or her supervisor Dr. Angela Martin (Angela.Martin@utas.edu.au or 03 6226 2713).

If you have any concerns about the conduct of this survey, you are welcome to contact the Executive Officer of the Human Research Ethics Committee (Tasmania) Network on 03 6226 7479 or human.ethics@utas.edu.au

If you are happy to complete the survey, please click 'next'.

What is your gender?

- Male
- Female
- Other

Please mark your age group?

- 18-24 years
- 25-30 years
- 31-40 years
- 41-50 years
- 51-60 years
- 61 years or older

What is the highest level of education or training that you have completed?

- Primary school
- Secondary school
- Vocational training (eg. trade certificate)
- Tertiary (eg. diploma, certificate, bachelor degree)
- Post graduate (eg. masters or doctorate)

What type of organisation do you work for?

- Public sector
- Private sector
- Not for profit/community
- Other____

Have you ever experienced depression?

- Yes
- No

Have you ever been diagnosed with depression?

- Yes
- No

Has anyone in your family, or a close friend, ever experienced depression?

- Yes
- No
- Don't know

Do you work in an organisation that employees more than 50 people?

- Yes
- No

Do any of your direct reports manage other employees?

- Yes
- No

To your knowledge, have you ever worked with, managed or supervised someone who was experiencing depression?

- Yes
- No

If yes, provide a brief summary of the situation, major workplace issues, strategies/approaches you used and outcomes_____

_____

How confident are you that you know how to effectively support the management of an employee with depression?

- Very confident
- Somewhat confident
- Don't know
- Not very confident
- Not at all confident

Have you ever received any training for your organisation relevant to dealing with depression in the workplace?

- Yes
- No

If yes, what sort of training was it? _____

What aspects were helpful? _____

Are there any ways it could have been improved? _____

Have you actively promoted/supported a mental health promotion initiative in your organisation?

- Yes
- No

If yes, what sort of initiative was it? What was your role? _____

How important do you think the following knowledge/skills are in relation to managing workplace mental health?

	1- Not at all important	2	3	4	5	6	7 - Extremely important
Risk and protective factors							
Common signs and symptoms of mental health problems							
Types of mental health problems							
Effective treatment approaches to common mental health problems							
Costs and business implications of mental health and illness							
Management strategies to support and manage employees with depression							
The role of leaders in promoting and supporting good mental health							
The impact of organisational culture/working conditions on mental health							
Strategies for managing your own mental health and building resilience							
Types of evidence-based workplace mental health programs							
Relevant policies, procedures and legal obligations							

How confident are you in your knowledge/skills in relation to the same areas of managing workplace mental health?

	1- Not at all confident	2	3	4	5	6	7 - Extremely confident
Risk and protective factors							
Common signs and symptoms of mental health problems							
Types of mental health problems							
Effective treatment approaches to common mental health problems							
Costs and business implications of mental health and illness							
Management strategies to support and manage employees with depression							
The role of leaders in promoting and supporting good mental health							
The impact of organisational culture/working conditions on mental health							
Strategies for managing your own mental health and building resilience							
Types of evidence-based workplace mental health programs							
Relevant policies, procedures and legal obligations							

As an organisational leader, what do you see as your role in terms of workplace mental health? _____

What sorts of elements would you like to see incorporated into the design of an online learning program for organisational leaders on managing depression in the workplace? (tick as many as are applicable)

- Downloadable summaries of key points
- Video clips of real leaders discussing their experiences
- Slide shows
- Discussion questions
- Quiz’s

- Case studies
- Pre-reading
- Links to relevant resources
- Articles and research papers
- Email support
- Discussion forums
- Other _____

Thank you for taking our survey. Your response is very important to us.

For further information about depression can be found on the beyondblue website www.beyondblue.org.au or by calling the beyondblue Information and Referral Line 1300 22 4636 (local call). You can access 24-hour telephone counselling by calling Lifeline 13 11 14. You may also have access to free counselling trough your organisation's Employee Assistance Program

Appendix B - Training needs analysis survey for HR and L & D professionals

Download the information sheet for participants by clicking here.

The purpose of this short survey is to identify the educational needs of organisational leaders (that is, managers of line managers) in relation to mental health in the workplace. The information from this survey will be used by beyondblue to design an online education package for leaders about mental health in the workplace.

Participation in this survey is entirely voluntary. Completion of the survey will indicate your consent to participate. Your responses will remain confidential and will be completely de-identified. There will be no way of the researchers knowing who completed which survey.

If you would like more information about this survey, please contact Clare Shann, Deputy CEO beyondblue and PhD Candidate (cbshann@utas.edu.au) or her supervisor Dr. Angela Martin (Angela.Martin@utas.edu.au or 03 6226 2713).

If you have any concerns about the conduct of this survey, you are welcome to contact the Executive Officer of the Human Research Ethics Committee (Tasmania) Network on 03 6226 7479 or human.ethics@utas.edu.au

If you are happy to complete the survey, please click 'next'.

What is your gender?

- Male
- Female
- Other

Please mark your age group?

- 18-24 years
- 25-30 years
- 31-40 years
- 41-50 years
- 51-60 years
- 61 years or older

What is the highest level of education or training that you have completed?

- Primary school
- Secondary school
- Vocational training (eg. trade certificate)
- Tertiary (eg. diploma, certificate, bachelor degree)
- Post graduate (eg. masters or doctorate)

What type of organisation do you work for?

- Public sector
- Private sector
- Not for profit/community
- Other____

Have you ever experienced depression?

- Yes
- No

Have you ever been diagnosed with depression?

- Yes
- No

Has anyone in your family, or a close friend, ever experienced depression?

- Yes
- No
- Don't know

Do you work in an organisation that employees more than 50 people?

- Yes
- No

Do you work in the area of human resources or learning & development?

- Yes
- No

How confident are you that your leadership team know how to effectively support the management of an employee with depression?

- Very confident
- Somewhat confident
- Don't know
- Not very confident
- Not at all confident

Have you ever organised any training for your leadership team relevant to dealing with depression in the workplace?

- Yes
- No

If yes, what sort of training was it? _____

What aspects were helpful? _____

Are there any ways it could have been improved? _____

Has your leadership team actively promoted/supported a mental health promotion initiative in your organisation?

- Yes
- No

If yes, what sort of initiative was it? What was their role in the initiative?
_____

How important do you think the following knowledge/skills are for leaders in relation to managing workplace mental health?

	1- Not at all important	2	3	4	5	6	7 - Extremely important
Risk and protective factors							
Common signs and symptoms of mental health problems							
Types of mental health problems							
Effective treatment approaches to common mental health problems							
Costs and business implications of mental health and illness							
Management strategies to support and manage employees with depression							
The role of leaders in promoting and supporting good mental health							
The impact of organisational culture/working conditions on mental health							
Strategies for managing your own mental health and building resilience							
Types of evidence-based workplace mental health programs							
Relevant policies, procedures and legal obligations							

How confident are you in your knowledge/skills of your senior management team in relation to the same areas of managing workplace mental health?

	1- Not at all confident	2	3	4	5	6	7 - Extremely confident
Risk and protective factors							
Common signs and symptoms of mental health problems							
Types of mental health problems							
Effective treatment approaches to common mental health problems							
Costs and business implications of mental health and illness							
Management strategies to support and manage employees with depression							
The role of leaders in promoting and supporting good mental health							
The impact of organisational culture/working conditions on mental health							
Strategies for managing your own mental health and building resilience							
Types of evidence-based workplace mental health programs							
Relevant policies, procedures and legal obligations							

What do you see as your organisational leadership's role in terms of workplace mental health? _____

What sorts of elements would you like to see incorporated into the design of an online learning program for organisational leaders on managing depression in the workplace? (tick as many as are applicable)

- Downloadable summaries of key points
- Video clips of real leaders discussing their experiences
- Slide shows
- Discussion questions
- Quiz's

- Case studies
- Pre-reading
- Links to relevant resources
- Articles and research papers
- Email support
- Discussion forums
- Other _____

Thank you for taking our survey. Your response is very important to us.

For further information about depression can be found on the beyondblue website www.beyondblue.org.au or by calling the beyondblue Information and Referral Line 1300 22 4636 (local call). You can access 24-hour telephone counselling by calling Lifeline 13 11 14. You may also have access to free counselling trough your organisation's Employee Assistance Program

Appendix C - The University of Tasmania Ethics Committee approval letter for training needs analysis

Social Science Ethics Officer
Private Bag 01 Hobart
Tasmania 7001 Australia
Tel: (03) 6226 2764
Fax: (03) 6226 7148
Marilyn.Knott@utas.edu.au

HUMAN RESEARCH ETHICS COMMITTEE (TASMANIA) NETWORK

26 October 2010

Dr Angela Martin
Management
Private Bag 16
Hobart Tasmania

Dear Dr Martin

Re: APPROVAL FOR AMENDMENT TO CURRENT PROJECT
Ethics Reference: H11240 - *Part 1: New Leaders for new times: An evaluation of an online depression awareness program for organisational leaders - Pilot Study*
Amendment dated 20 September 2010 - Addition to participation recruitment - request approval to send invitation to beyondblue's e-network

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The Chair of the Tasmania Social Sciences Human Research Ethics Committee approved the Amendment to the above project on 24 October 2010..

Yours sincerely

Marilyn Pugsley
Ethics Officer

Appendix D - Full listing of the thematic coding descriptions for each open-ended question in the training needs analysis

LEADERS[9]

Question 11: *Provide a brief summary of the situation [of working with someone with depression], major workplace issues, strategies/approaches you used and outcomes.*

Total number of qualitative responses to this question: **259**

Code	Description	Examples	No. of responses
REL	Relationship problem, either at home or in the workplace	"A friend and colleague went through a divorce that spiralled him into depression."	20
BUL	Experience of bulling in the workplace	"Staff member had been bullied by other staff including senior staff members."	4
MHP	Diagnosed mental health problem	"My staff member had suffered major long term depression."	57
STE	Experience of workplace stress	"Caused by unnecessary stress levels."	4
PER	Work performance issues identified	"Loss of concentration, productivity, antisocial, moody employee."	24

[9] Please note that due to nature of these questions many responses were assigned more than one code.

ABS	Absenteeism	“Employee had excessive sick days without illness.”	17
MOT	Lack of motivation displayed at work	“Employee lacked any form of motivation and struggled to interact with colleagues.”	3
GSUP	General support offered to employee, including communication, more regular contact, demonstrating understanding, listening to issues.	“I believe the symptoms indicated depression. As it had not been raised by the employee, I monitored the situation for deterioration and supported them at work the best I could.”	77
COUN	Referral to counselling outside the workplace	“Approach is always a counselling and referral model.”	47
	Referral to workplace-funded Employee Assistance Program	“Employee assistance program available to all staff.”	
			38
EAP			
FLEX	Flexibility in work role negotiated, for example, reduced hours or workload, time off work to seek treatment.	“Provided unlimited flexibility in which to allow the employee to recover at their own rate.”	63
RES	Employee resigned from role or their employment was terminated	“Employee ended up leaving the team.”	18
OTH	Other	“Was mindful of their situation.”	25

Question 14: *[If they answered yes to Q.13, indicating they had participated in training related to depression in the workplace] what sort of training was it?*

Total number of qualitative responses to this question: **50**

Code	Description	Examples	No. of responses
MHFA	Mental Health First Aid Training	"Mental Health First Aid."	13
BB	*beyondblue* Training	"beyondblue in-service course."	8
EAP	Training delivered by their organisation's Employee Assistance Program	"Mostly an information session provided by our EAP provider."	3
SP	Suicide Prevention Training	"ASSIST Training."	1
BDI	Training delivered by the Black Dog Institute	"Via blackdog."	1
OTH	Other	"An online training course."	26

Question 15: *What aspects of the training were helpful?*

Total number of qualitative responses to this question: **45**

Code	Description	Examples	No. of responses
MHC	Identifying and understanding mental health conditions	"Diagnosing and understanding mental health conditions, recognising the signs."	8
INFO	Information about services and resources	"Awareness about what services were available to support the staff member through their illness."	6
WPS	Workplace strategies for responding to mental health conditions	"Just some workplace strategies options."	13
CS	Provision of case studies and examples	"Case studies."	3
OTH	Other	"Specifics on what IR allows."	17
ALL	All aspects were helpful	"All aspects were helpful."	8

Question 16: *Are there any ways the training could have been improved?*

Total number of qualitative responses to this question: **29**

Code	Description	Examples	No. of responses
RTT	Repeat training and updates	"Training updates are useful."	7
MDI	More detailed information	"Needed further information."	7
WRS	Written resources/ strategies guide	"Links to HR practices – example policies organisation could develop to support people. Guidance on workplace wellbeing strategies."	3
PCS	Provision of case studies	"Case study examples."	2
OTH	Other	"Not that I can think of."	21

Question 18: *[If they answered yes to Q.17, indicating they actively promoted/supported a mental health promotion initiative] what sort of initiative was it? What was your role?*

Total number of qualitative responses to this question: **148**

Code	Description	Examples	No. of responses
CS	Provision of counselling services	"Confidential psychiatric care for employees having personal problems providing free sessions with mental health professional with total confidentiality."	30
BB	*beyondblue*	"*beyondblue*."	25
INF	Training/ workshops/ information sessions	"Information sessions, health assessment."	22
GAR	General awareness raising	"Mental health awareness and use of diagnostic questionnaires."	17
PBI	Posters/ brochures/ information made available	"Putting up posters, providing information brochures, etc."	10
MOV	Movember	"Movember – my role was the internal event coordinator."	10
RU	RUOK? Day	"Endorsement of RUOK? Day"	9
HP	Health and wellbeing program	"Not specifically mental health, but have a wellness and health risk assessment program."	7
SM	Stress management	"Stress management and meditation."	3
FUN	Other fundraising activities	"Executive team 'auction' to staff, who donate to *beyondblue*."	3
OTH	Other	"Part of the HR role I was doing."	25

Question 21: *As an organisational leader, what do you see as your role in terms of workplace mental health?*

Total number of qualitative responses to this question: **298**

Code	Description	Examples	No. of responses
SUP	Providing support to person experiencing mental health issue	"Ensuring staff are supported and excessive workloads do not negatively impact on them."	105
CUL	Promoting a healthy workplace culture and environment	"Having a strategy to promote healthy workplaces in regard to mental health."	69
AWR	Raising awareness and being aware of employee mental health and wellbeing	"Being aware."	40
ID	Identifying signs and symptoms	"I need to be able to identify the signs early so I can work with the employee to manage the impacts to their job and business."	40
UND	Promoting understanding and knowledge about mental health, services, and resources	"Understand how to support an employee with a mental illness."	36
RM	Being a positive role model	"I check myself to make sure I'm not sending the wrong message in terms of managing my own workload."	27
REF	Referring to or assisting access to services	"Provide information and guidance about where to seek help."	22
POL	Implementing and promoting policies on mental health	"Implement and support company policies and procedures to ensure fair treatment."	19

MIN	Minimising impacts to business	“Identify any mental health risks that exist and manage the cost there of.”	8
OTH	Other	“Moderator.”	48

Question 22: *What sorts of elements would you like to see incorporated into the design of an online learning program for organisational leaders on managing depression in the workplace?* Below are the free-text responses from those respondents who ticked 'Other'.

Total number of qualitative responses to this question: **32**

Code	Description	Examples	No. of responses
PRAC	Practical strategies for responding to mental health crises in the workplace	"Any information on how to deal with someone who is having a breakdown."	6
SUP	Online access to support (e.g., chat rooms, experts, support groups)	"Facilitated chat room."	5
PERS	Access to personal stories about depression	"Employees suffering from depression talking about how it affects them."	4
PROG	Access to online programs/workshops	"Links to ready-to-implement programs."	3
CON	Useful contact information	"Email addresses of people who have experienced depression first hand and who may be willing to speak to leaders who want more info."	3
INF	Information to increase knowledge about mental illness	"Tips to identify symptoms."	2
OTH	Other	"Common misconceptions."	8

Qualitative Thematic Codes, Descriptions and Illustrative Examples – HR/L & D PROFESSIONALS[10]

Question 12: *[If they answered yes to Q.11, indicating they had organised training for their leadership team relevant to depression in the workplace] what sort of training was it?*

Total number of qualitative responses to this question: **84**

Code	Description	Examples	No. of responses
MHFA	Mental Health First Aid Training	"Mental Health First Aid."	23
BB	*beyondblue* Training	"*beyondblue*."	16
AWR	Mental health awareness	"Awareness sessions (anxiety/depression), psychosocial risk factors."	15
EAP	Provided by or related to the organisation's Employee Assistance Program	"EAP Provider – seminars."	8
WB	Wellbeing/ stress management	"Dealing with stress."	3
WRK	Managing mental health in the workplace	"Face to face training titled 'Dealing with mental health in the workplace'."	3

[10] Please note that due to nature of these questions many responses were assigned more than one code.

SUI	Suicide Prevention Training	“Department of Health and Families workshops for OHS officers on suicide prevention.”	2
OTH	Other	“EEO, HR, Change management.”	14

Question 13: *What aspects of the training were helpful?*

Total number of qualitative responses to this question: **68**

Code	Description	Examples	No. of responses
AWR	Raising general awareness about mental health	"Awareness. Cost analyses."	20
RESP	Ways to respond/ support someone experiencing mental health problems	"Contacts and better understanding of supporting workers with depression."	12
ID	Ways to identify depression and mental illness	"Strategies for identifying mental health problems and suicide."	10
RESO	Resources and information about accessing services	"Where to find help for a person."	6
STIG	Reducing stigma about mental health through discussion	"Encouraging people to not be afraid to talk to someone about their depression – the speaker de-stigmatised the condition to some degree."	3
OTH	Other	"Coping mechanisms."	13
ALL	All aspects were helpful	"All of it."	10

Question 14: *Are there any ways the training could have been improved?*

Total number of qualitative responses to this question: **38**

Code	Description	Examples	No. of responses
EXP	Expand to include more people in the organisation	"Ensuring that all new supervisors/managers attend training in this area."	6
REP	Repeat training/ updates	"Having it more often."	5
PRAC	Specific and practical strategies for responding to mental health needs in the workplace	"More tips on identifying signs of and managing depression."	5
POL	Information about appropriate workplace policies and procedures	"Some organisational policies or procedures relating to current workforce."	5
SUP	Ongoing support from mental health professional	"More info on long term support needs."	4
MAN	Greater support from management	"Removing the stigma associated with depression – particularly for some managers."	4
INF	More detailed information	"More detail."	2
OTH	Other	"Case studies."	8

Question 16: *[If they answered yes to Q.15, indicating their leadership team has actively promoted/supported a mental health promotion initiative] what sort of initiative was it? What was their role in the initiative?*

Total number of qualitative responses to this question: **145**

Code	Description	Examples	No. of responses
COUN	Provision of counselling services, including EAP	"Counselling services for staff."	30
WBP	Health/ wellbeing/ stress management program	"Will be in next months health and wellbeing program."	17
MHW	Mental Health Week	"Co-ordinated mental health week, fund raising and seminars."	14
RUOK	RUOK? Day	"Are you ok day."	13
TRA	Training/ workshop/ information session provided	"Courses and seminars."	13
BB	*beyondblue*	"*beyondblue.*"	12
MHFA	Mental Health First Aid	"MHFA is mandatory for all employees."	12
POS	Posters/ brochures/ internal emails	"Displaying flyers."	7
AWR	General awareness raising	"Awareness particularly for youth."	6
MOV	Movember	"Fundraising for Movember."	5
FUN	Other fundraising activities	"LifeLine's Stress down day, came up with ideas."	9
MEN	Men's Health	"Men's health workshop."	4

STRL	Stress Less Campaign (Mental Health Association of NSW)	“Stress less day – information provided about stress, depression, etc.”	3
SUI	Suicide prevention	“Suicide awareness.”	3
OTH	Other	“Love you life day.”	26

Question 19: *What do you see as your organisational leadership's role in terms of workplace mental health?*

Total number of qualitative responses to this question: **227**

Code	Description	Examples	No. of responses
SUP	Providing general support	"Acceptance and support initiatives."	61
CUL	Creating/ promoting a healthy workplace culture and environment	"Creating a culture of openness and support."	40
KNOW	Having knowledge and skills to identify and respond	"Identifying it and dealing with it in a positive framework."	32
AWR	Raising awareness of mental health issues	"Leading by promoting awareness and good mental health activities."	23
MOD	Modelling resilience and self-care behaviours	"Setting good mental health examples."	19
PRO	Proactive response to mental health needs, visible support	"Actively and visibly supporting the agenda, inviting and enabling open dialogue."	18
EDUC	Educating staff regarding mental health and available support services	"Create an understanding of, and use of, mental health support mechanisms."	16
POL	Ensuring policies/ procedures in place to support mental health needs	"Initially to devise a specifically related HRM policy would be one step in a more positive direction."	16
REF	Referring/ supporting access to treatment services	"Identifying, supporting and possible referrals."	14

DISC	Facilitating open discussion about mental health and reducing stigma	“Making it ok to talk about it.”	10
TRA	Providing training and education to staff regarding mental health	“Provision of training, identification and prevention.”	8
FLEX	Offering flexible work conditions	“Flexible work practices and proper work plans.”	5
OTH	Other	“Accepting that mental health issues are a part of any workplace.”	36

Question 20: *What sorts of elements would you like to see incorporated into the design of an online learning program for organisational leaders on managing depression in the workplace?* Below are the free-text responses from those respondents who ticked 'Other'.

Total number of qualitative responses to this question: **46**

Code	Description	Examples	No. of responses
INT	Inclusion of interactive components (for example, discussion forums, online support)	"A variety of interactive and information tools are good."	6
MAT	Access to a range of materials on workplace mental health	"Occupational health guidelines."	6
INH	In-house (rather than online) training and support	"Speakers some to the office and present. This would be by far the best method for us."	5
KNOW	Information to increase knowledge and understanding	"Online advice for management."	5
PERS	Information about personal experiences with depression in the workplace and how it was managed	"Anonymous case studies."	4
STR	Practical strategies for responding to workplace mental health issues	"Examples of evidence-based workplace strategies."	3
PROG	Examples of workplace programs	"Templates or examples of workplace programs."	3
PROF	Mental health professionals actively involved with content and online support	"Talks by experts in their field."	3
BUS	Information about business impact, for example, legal issues and costs	"Costs to organisation."	2
EMP	Section for employees to disclose information about	"Have an anonymous employee's voice section to provide feedback on what their managers did for	2

	workplace experience with depression	them."	
LANG	Appropriate language used in content, for example, minimising jargon	"Jargon can be broken down."	1
FOLL	Follow-up on training	"Some follow up on an annual basis."	1
OTH	Other	"Links to further training options."	12

Appendix E - Overview of the results of the usability testing of the online program

All measures, and the online survey format, were tested for usability and comprehension prior to data collection. This allowed the refinement of design, clarification of ambiguous wording, removal of jargon, identification of formatting problems and usability issues of the online survey software. The five online surveys were pre-tested with twenty organisational leaders, research professionals and mental health specialists. Pre-test participants were sent a link to the pre-survey, and once they completed it they were randomly allocated (by the online software) into either the experimental or control groups. Pilot participants were then emailed the appropriate instructions to complete the next steps of the study and a link to the two final surveys. People allocated to the experimental group were also asked to work through the online program and provide any feedback in terms of usability and comprehension. Participants in the pre-testing phase completed the surveys independently and provided feedback to the researcher via email.

Feedback received related to: typographical errors in the survey questions or cover emails; formatting of the responses for each survey item; and, ambiguous instructions for one of the scales. All suggested changes to the online surveys were incorporated into the final versions. Several people also reported that the emails (which were sent to participants through the online survey software package) were automatically delivered to their ‘junkmail’ folders. This issue could not be rectified within the software so a decision was made to send emails to participants in the evaluation study from the researcher’s University of Tasmania email account.

Appendix F - The University of Tasmania Ethics Committee approval letter for evaluation study

Social Science Ethics Officer
Private Bag 01 Hobart
Tasmania 7001 Australia
Tel: (03) 6226 1832
Fax: (03) 6226 7148
Marilyn.pugsley@utas.edu.au

HUMAN RESEARCH ETHICS COMMITTEE (TASMANIA) NETWORK

16 February 2011

Dr Angela Martin
Management
Private Bag 16
Hobart Tasmania

Dear Dr Martin

Re: FULL ETHICS APPLICATION APPROVAL - Ref: H11571
Part 2: New Leaders for new times: An evaluation of an online depression awareness and stigma reduction program for organizational leaders.

We are pleased to advise that the Tasmania Social Sciences Human Research Ethics Committee approved the above project on 16 February 2011.

Please note that this approval is for four years and is conditional upon receipt of an annual Progress Report. Ethics approval for this project will lapse if a Progress Report is not submitted.

The following conditions apply to this approval. Failure to abide by these conditions may result in suspension or discontinuation of approval.

1. It is the responsibility of the Chief Investigator to ensure that all investigators are aware of the terms of approval, to ensure the project is conducted as approved by the Ethics Committee, and to notify the Committee if any investigators are added to, or cease involvement with, the project.

2. Complaints: If any complaints are received or ethical issues arise during the course of the project, investigators should advise the Executive Officer of the Ethics Committee on 03 6226 7479 or human.ethics@utas.edu.au.

3. Incidents or adverse effects: Investigators should notify the Ethics Committee immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.

Appendix G - Participant information sheet

Organisational leadership and workplace mental health study

You are invited to participate in a research project that aims to trial a new *beyondblue* online resource designed to equip organisational leaders with the knowledge and skills to promote a mentally healthy culture within their workplace.

This project is being conducted as partial fulfilment of a PhD for Clare Shann, under the supervision of Dr Angela Martin, University of Tasmania.

What is the purpose of this research?
More than one million Australians experience depression each year, with depression currently the leading cause of non-fatal disability and lost productivity at work. Despite these statistics, depression is generally not managed well by organisations. Workplace mental health training programs tend to target staff and line managers. It is rare that skills training on this issue is built into leadership education programs.

Results from this study will evaluate a new online program for leaders and help to promote mental health awareness as a key component of leadership development.

What will you be asked to do?
If you choose to participate, you will be asked to complete **3 surveys over a 6-8 month period**. Each survey will take approx **10-15 minutes** and asks you about things such as your knowledge about depression and its impact at work, what supports are in place in your organisation for people with a mental health problem and your feedback about the online resource. The surveys will be conducted online and the survey links will be emailed to you at your preferred email address.

You may be asked to complete an online workplace mental health resource specifically designed for organisational leaders. You will be randomly allocated to one of two groups:

1. The experimental group which involves completion of an online resource designed for leaders. This resource is expected to take no more than 40 mins to complete and can be completed at a time that is convenient to you. At the end of completing the program you will be asked to identify some activities related to the content that you would like to implement back in your workplace. You may also be asked to participate in a short (15 mins approx) telephone interview at the end of the study. This will be scheduled at a time that suits you; or,
2. The control group that will not involve any activities during the course of the research (except completion of the surveys mentioned above). However, people in this group will be offered access to the online resource at the end of the research project, which will be no longer than 6-8 months from sign-up to the study.

While it is not anticipated that participation in this study will cause you any distress, if at any stage you experience distress due to the questions asked, please stop completing the survey or the online resource. Further information and support can be found on the *beyondblue* website or by calling the *beyondblue* support line 1300 22 4636. You can

access 24-hour telephone counselling by calling Lifeline 13 11 14. You may also have access to free counselling through your organisation's Employee Assistance Program.

Participation is entirely voluntary and you are free to withdraw at any time without having to explain why, and you can also withdraw any information you have supplied.

How will your personal information be treated?
All information obtained in this study will be used for research purposes only. It will remain confidential and be kept secure with access only by authorised research team members. No information identifying individual participants will be used in publications arising from the research.

This survey is hosted on a secure web-based program called Moodle. If you complete the survey, the responses will be stored on a secure Moodle host server in Australia, owned and operated by Brightcookie Educational Technologies. Once we have completed our data collection and analysis, we will import the data we collect to the University of Tasmania server where it will be stored securely for a period of five years. The data on the host server will then be deleted. For more information on Brightcookie's privacy and security policy go to http://www.brightcookie.com/privacy-statement/.

Who is invited to participate?
Organisational leaders and senior managers.

What do you get out of being involved?
Your participation in the research will improve *beyondblue's* understanding about the best ways to equip organisational leaders with the knowledge and skills to promote and support mentally healthy workplaces.

At the conclusion of the study a report on the results will be available on the University of Tasmania and *beyondblue* website.

Research team members
Clare Shann, PhD Candidate, clare.shann@utas.edu.au

Dr Angela Martin, Senior Lecturer, School of Management (UTAS), Angela.Martin@utas.edu.au Ph: 03 6226 2713

A/Prof Andrea Chester, College of Science, Engineering and Technology (RMIT), Andrea.Chester@rmit.edu.au, Ph: 03 9925 3150

Who to contact
If you would like more information about the study, please contact Clare Shann clare.shann@utas.edu.au.

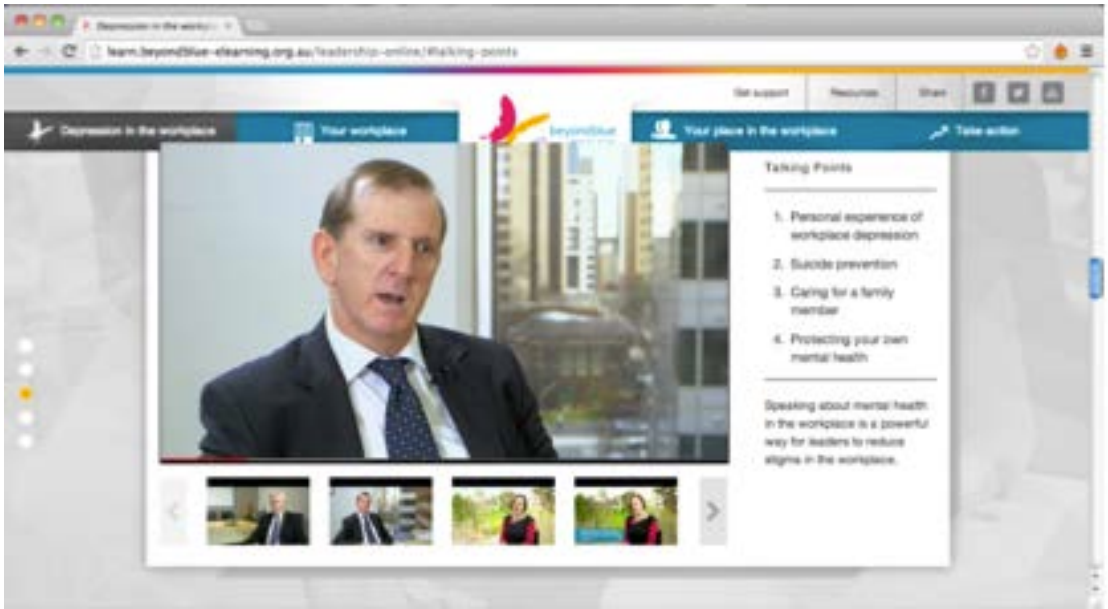
Concerns or complaints
This research has received approval from the Human Research Ethics Committee (Tasmania) Network. If you have any concerns of an ethical nature or complaints about the manner in which the project is conducted, you may contact the Executive Officer of the Human Research Ethics Committee (Tasmania) Network on (03) 6226 7479 or human.ethics@utas.edu.au. You will need to quote ethics reference H11571.

Thank you for your participation in this important study.
Dr Angela Martin, Chief Investigator

Appendix H - Screen shots from, and structure of, beyondblue's online workplace mental health program

Home screen of program:

Video of a leader discussing his own experience of managing depression in the workplace:



Cost calculator tool:

Action plan tool:

Structure of the online program

1. **Depression in the workplace:** Learn about the impact of mental health in the workplace and calculate the cost to your business.
    a. Counting the cost (info)
    b. Scale of the issue (info)
    c. Personal experiences (video)
    d. Cost calculator (tool)
    e. Results (info)
2. **Your workplace:** Identify and respond to risks to mental health in your workplace.
    a. Your workplace (info)
    b. Risk management (info)
    c. Risk factor identification (tool)
    d. Results (info)
    e. A mentally healthy workplace (video)
    f. Reducing risk (info)
3. **Your place in the workplace:** Learn how to positively impact workplace culture, management practices and improve the experience of employees.
    a. Your place in the workplace (info)
    b. Leadership strategies (video)
    c. Personal impact map (tool)
    d. Starting the conversation (info)
    e. Talking about workplace mental health (video)
    f. Stamping out stigma (info)

4. **Take action:** Create an action plan to set goals and deadlines for minimising the impact of depression and anxiety in your workplace.
    a. Take action (info)
    b. Taking action (video)
    c. Action plan step 1 (tool)
    d. Action plan step 2 (tool)
    e. Action plan report (tool)
5. **Get support**
6. **Resources**
7. **Share**

Appendix I - Pre-survey for evaluation study

Organisational leadership and workplace mental health study

Thank you for taking an interest in participating in the evaluation of a new *beyondblue* online resource which aims to equip leaders with the knowledge and skills to promote mental health in their workplace.

Participation in this survey is entirely voluntary. Completion of the survey (outlined below) will indicate your consent to participate. Your responses will remain confidential.

If you would like more information about this study, please contact Clare Shann, PhD Candidate (clare.shann@utas.edu.au) or her supervisor Dr Angela Martin (Angela.Martin@utas.edu.au or 03 6226 2713).

If you have any concerns about the conduct of this study, you are welcome to contact the Executive Officer of the Human Research Ethics Committee (Tasmania) Network on (03) 6226 7479 or human.ethics@utas.edu.au Please quote ethics reference number H11571.

Please agree to the following:

I have read and understood the Information Sheet for this study.

1. The nature and possible effects of the study have been explained to me to my satisfaction in the information sheet and my consent is given voluntarily.
2. I understand that the study involves me:
    - completing a survey on 3 occasions over a 6-8 month period;
    - being randomly allocated to one of two groups;
        - **The experimental group** which will complete the online resource (40 mins approx) designed for organisational leaders and may involve a short (15 mins) phone interview; and,
        - **The control group** that will not involve any activities during the course of the research (except completion of the 3 surveys mentioned above). However, people in this group will be offered access to the online resource at the end of the study.
3. I understand that all the information obtained in the study will be used for research purposes and no information that could identify me will be published.
4. I understand that information collected via the surveys will be securely retained by beyondblue and the University of Tasmania, and will be destroyed 5 years after the publication of the study.
5. I have been given the opportunity to ask the research team members any questions that I may have and if applicable, these have been answered to my satisfaction.
6. I agree to participate in this study and understand that I may withdraw at any time without any effect, and if I so wish, may request that any data I have supplied to date be withdrawn from the research.

To participate in this study, please click here to register.

What is your gender?

1. Female
2. Male
3. Other

Please mark your age group?

1. 18-24 years
2. 25-30 years
3. 31-40 years
4. 41-50 years
5. 51-60 years
6. 61 years or older

What is the highest level of education or training you have completed?

1. Primary school
2. Secondary school
3. Vocational training (eg. trade certificate)
4. Tertiary (eg. diploma, certificate, bachelor degree)
5. Post graduate (eg. masters or PhD)

Why type of organisation do you work for?

1. Public sector
2. Private sector
3. Not for profit/community
4. Other _____

Have you ever experienced depression?

1. Yes
2. No

Have you ever been diagnosed with depression?

1. Yes
2. No

Has anyone in your family, or a close friend, ever experienced depression?

1. Yes
2. No
3. Not that I know of

Do you work in an organisation that employs more than 50 people?

1. Yes
2. No

Do any of your direct reports manage other employees?

1. Yes
2. No

To your knowledge, have you ever worked with, managed or supervised someone who was experiencing depression?

1. Yes
2. No

How confident are you that you know how to effectively support the management of an employee with depression?

1. Very confident
2. Somewhat confident
3. Don't know
4. Not very confident
5. Not at all confident

Have you ever received any training from your organisation relevant to dealing with depression in the workplace?

1. Yes
2. No

If yes, what sort of training was it?

_____

_____

Approximately what percentage of Australians do you think experience depression at some time in their lifetime?

1. 2%
2. 5%
3. 15%
4. 25%

What is the likelihood that you, someone in your family, or someone very close to you will experience depression at some stage in their lifetime?

1. Unlikely (0-25%)
2. Possible (26-50%)
3. Very likely (51-75%
4. Almost certainly (76-100%)

Please circle 'true' or 'false' to indicate your opinion about each statement.	
Depression may come and go from day to day	T/**F**
Depression-related reduced productivity ('presenteeism') at work has a bigger impact on organisations than depression-related absenteeism	**T**/F
There is always an identifiable cause of someone's depression	T/**F**
Depression and stress are pretty much the same thing	T/**F**
People with depression should stop working until they recover	T/**F**
Psychological therapy is one of the most effective treatments for depression	**T**/F
People with depression never fully recover	T/**F**
Antidepressant medication can be an effective treatment for severe depression	**T**/F

Please read each statement and circle a number to indicate your opinion about the statement.					
1	**2**	**3**	**4**	**5**	**6**
strongly disagree	**disagree**	**somewhat disagree**	**somewhat agree**	**agree**	**strongly agree**
I feel comfortable dealing with depressed employees **(R)**					1 2 3 4 5 6
Employees with depression scare me					1 2 3 4 5 6
Working with depressed employees is stressful					1 2 3 4 5 6
It makes me feel awkward working alongside someone who is depressed					1 2 3 4 5 6
If an employee is suffering from depression, it is his/her own fault					1 2 3 4 5 6
Employees with depression are a liability to an organisation					1 2 3 4 5 6
Employees needing antidepressants should not be working					1 2 3 4 5 6
Employees with depression could snap out of it if they wanted to					1 2 3 4 5 6
I would avoid talking to an employee with depression so I don't have to deal with their problems					1 2 3 4 5 6
I would not employ someone if I knew they had been depressed					1 2 3 4 5 6
I would make temporary changes to the job to help a depressed employee's recovery process **(R)**					1 2 3 4 5 6
I would try to get rid of an employee with depression					1 2 3 4 5 6

Please read the following vignette and answer the questions below:

John is 30 years old. He has been feeling unusually sad and miserable for the last few weeks. Even though he is tired all the time, he has trouble sleeping nearly every night. John doesn't feel like eating and has lost weight. He can't keep his mind on his work and puts off making any decisions. Even day-to-day tasks seem too much for him. This has come to the attention of John's boss who is concerned about his lowered productivity.

Please read each statement and circle a number to indicate how willing you would be to:				
1	**2**	**3**	**4**	
Definitely willing	**Probably willing**	**Probably unwilling**	**Definitely unwilling**	
Move next door to John				1 2 3 4
Spend an evening socialising with John				1 2 3 4
Make friends with John				1 2 3 4
Have John start working closely with you on a job				1 2 3 4
Have John marry into your family				1 2 3 4

Please indicate the extent to which you would experience the following:					
1	**2**	**3**	**4**	**5**	
Definitely not	**Probably not**	**Neutral**	**Probably would**	**Definitely would**	
Concern					1 2 3 4 5
Desire to help					1 2 3 4 5
Pity					1 2 3 4 5
Dismay					1 2 3 4 5
Unease					1 2 3 4 5
Insecurity					1 2 3 4 5
Desire to withdraw					1 2 3 4 5
Fear					1 2 3 4 5
Disgust					1 2 3 4 5
Irritation					1 2 3 4 5
Lack of understanding					1 2 3 4 5
Ridicule					1 2 3 4 5

Embarrassment	1 2 3 4 5
Sympathy	1 2 3 4 5

Please read each statement and circle a number to indicate your opinion about the statement.					
1	**2**	**3**	**4**	**5**	**6**
strongly disagree	**disagree**	**somewhat disagree**	**somewhat agree**	**agree**	**strongly agree**
Managers in my organisation know what to do if an employee has a problem with depression **(R)**					1 2 3 4 5 6
Employee depression is a matter of occupational health and safety in my organisation **(R)**					1 2 3 4 5 6
If an employee of my organisation is experiencing depression, there is a clear course of action that a manager should take **(R)**					1 2 3 4 5 6
My organisation has a clear policy on employee mental health **(R)**					1 2 3 4 5 6
My organisation has an Employee Assistance Program (EAP) that most people are aware of **(R)**					1 2 3 4 5 6

Please read each statement and circle a number to indicate your opinion about the statement.					
1	**2**	**3**	**4**	**5**	**6**
strongly disagree	**disagree**	**somewhat disagree**	**somewhat agree**	**agree**	**strongly agree**
In my organisation, it is not considered appropriate to discuss problems like depression					1 2 3 4 5 6
Employees in my organisation would be hesitant to disclose that they were suffering from depression					1 2 3 4 5 6
In my organisation, you should not tell anyone if you have depression					1 2 3 4 5 6
Most people in my organisation would agree that the workplace provides an opportunity to help depressed employees **(R)**					1 2 3 4 5 6
Employee depression is considered a suitable topic for discussion in my workplace **(R)**					1 2 3 4 5 6
In my organisation, your career would be over if you told anyone that you are suffering from depression					1 2 3 4 5 6

Please read each statement and circle a number to indicate your opinion about the statement.				
1	**2**	**3**	**4**	**5**
Strongly agree	**Somewhat agree**	**Neither agree or disagree**	**Somewhat disagree**	**Strongly disagree**
I am motivated to learn the material in this online resource				1 2 3 4 5
I will try to learn as much as I can from this online resource				1 2 3 4 5
I will put more effort into this online resource than most people				1 2 3 4 5
I am willing to exert considerable effort to learn the content of this online resource				1 2 3 4 5

Thank you for taking the time to complete this survey. Your participation in this survey will help *beyondblue* evaluate their new online resource for leaders.

You will be sent an email in approximately one week informing you of the next step of your participation in this study.

Appendix J - Post-survey (experimental group) for evaluation study

Organisational leadership and workplace mental health study

Thank you for completing *beyondblue's* online resource for leaders. Please now complete the following brief survey. It should take you no longer than 10-15 mins.

Approximately what percentage of Australians do you think experience depression at some time in their lifetime?

1. 2%
2. 5%
3. 15%
4. 25%

What is the likelihood that you, someone in your family, or someone very close to you will experience depression at some stage in their lifetime?

1. Unlikely (0-25%)
2. Possible (26-50%)
3. Very likely (51-75%
4. Almost certainly (76-100%)

Please circle 'true' or 'false' to indicate your opinion about each statement.	
Depression may come and go from day to day	T/**F**
Depression-related reduced productivity ('presenteeism') at work has a bigger impact on organisations than depression-related absenteeism	**T**/F
There is always an identifiable cause of someone's depression	T/**F**
Depression and stress are pretty much the same thing	T/**F**
People with depression should stop working until they recover	T/**F**
Psychological therapy is one of the most effective treatment for depression	**T**/F
People with depression never fully recover	T/**F**
Antidepressant medication can be an effective treatments for severe depression	**T**/F

Please read each statement and circle a number to indicate your opinion about the statement.					
1	**2**	**3**	**4**	**5**	**6**
strongly disagree	**disagree**	**somewhat disagree**	**somewhat agree**	**agree**	**strongly agree**
I feel comfortable dealing with depressed employees **(R)**					1 2 3 4 5 6
Employees with depression scare me					1 2 3 4 5 6
Working with depressed employees is stressful					1 2 3 4 5 6
It makes me feel awkward working alongside someone who is depressed					1 2 3 4 5 6
If an employee is suffering from depression, it is his/her own fault					1 2 3 4 5 6
Employees with depression are a liability to an organisation					1 2 3 4 5 6
Employees needing antidepressants should not be working					1 2 3 4 5 6
Employees with depression could snap out of it if they wanted to					1 2 3 4 5 6
I would avoid talking to an employee with depression so I don't have to deal with their problems					1 2 3 4 5 6
I would not employ someone if I knew they had been depressed					1 2 3 4 5 6
I would make temporary changes to the job to help a depressed employee's recovery process **(R)**					1 2 3 4 5 6
I would try to get rid of an employee with depression					1 2 3 4 5 6

Please read the following vignette and answer the questions below:

John is 30 years old. He has been feeling unusually sad and miserable for the last few weeks. Even though he is tired all the time, he has trouble sleeping nearly every night. John doesn't feel like eating and has lost weight. He can't keep his mind on his work and puts off making any decisions. Even day-to-day tasks seem too much for him. This has come to the attention of John's boss who is concerned about his lowered productivity.

Please read each statement and circle a number to indicate how willing you would be to:				
1	**2**	**3**	**4**	
Definitely willing	**Probably willing**	**Probably unwilling**	**Definitely unwilling**	
Move next door to John				1 2 3 4
Spend an evening socialising with John				1 2 3 4
Make friends with John				1 2 3 4
Have John start working closely with you on a job				1 2 3 4
Have John marry into your family				1 2 3 4

Please indicate the extent to which you would experience the following:					
1	**2**	**3**	**4**	**5**	
Definitely not	**Probably not**	**Neutral**	**Probably would**	**Definitely would**	
Concern					1 2 3 4 5
Desire to help					1 2 3 4 5
Pity					1 2 3 4 5
Dismay					1 2 3 4 5
Unease					1 2 3 4 5
Insecurity					1 2 3 4 5
Desire to withdraw					1 2 3 4 5
Fear					1 2 3 4 5
Disgust					1 2 3 4 5
Irritation					1 2 3 4 5
Lack of understanding					1 2 3 4 5
Ridicule					1 2 3 4 5
Embarrassment					1 2 3 4 5
Sympathy					1 2 3 4 5

Please read each statement and circle a number to indicate your opinion about the statement.					
1	**2**	**3**	**4**	**5**	**6**
strongly disagree	**disagree**	**somewhat disagree**	**somewhat agree**	**agree**	**strongly agree**
The content of this resource was relevant to my job role					1 2 3 4 5 6
The resource was easy to use					1 2 3 4 5 6
The material presented was clear					1 2 3 4 5 6
I could easily understand the material in the resource					1 2 3 4 5 6
The resource was informative					1 2 3 4 5 6
The resource was useful					1 2 3 4 5 6
The resource was interesting					1 2 3 4 5 6
The resource was motivating					1 2 3 4 5 6
The resource was appealing					1 2 3 4 5 6
I would recommend the resource to other organisational leaders					1 2 3 4 5 6

Thank you for taking the time to complete this survey.

We will be back in touch with you in approximately 6 months to invite you to complete the last short online survey for this study. In the meantime, if you have any questions about the study please contact Clare Shann clare.shann@utas.edu.au

Appendix K - Post-survey (control group) for evaluation study

Organisational leadership and workplace mental health study

Thank you once again for agreeing to be a part of this study. You have been assigned to the ‘ control’ group in this study which means that you won’t be required to complete the online resource during the course of this study (approximately 6 months). You can complete the resource once the study is complete.

☐ Tick here to confirm that you haven’t completed *beyondblue’s* online resource for leaders (you will be sent a link to this program at the end of this study, please do not complete it until then).

Approximately what percentage of Australians do you think experience depression at some time in their lifetime?

1. 2%
2. 5%
3. 15%
4. 25%

What is the likelihood that you, someone in your family, or someone very close to you will experience depression at some stage in their lifetime?

1. Unlikely (0-25%)
2. Possible (26-50%)
3. Very likely (51-75%
4. Almost certainly (76-100%)

Please circle ‘true’ or ‘false’ to indicate your opinion about each statement.	
Depression may come and go from day to day	T/**F**
Depression-related reduced productivity (‘presenteeism’) at work has a bigger impact on organisations than depression-related absenteeism	**T**/F
There is always an identifiable cause of someone’s depression	T/**F**
Depression and stress are pretty much the same thing	T/**F**
People with depression should stop working until they recover	T/**F**
Psychological therapy is one of the most effective treatment for depression	**T**/F
People with depression never fully recover	T/**F**
Antidepressant medication can be an effective treatments for severe depression	**T**/F

Please read each statement and circle a number to indicate your opinion about the statement.					
1	**2**	**3**	**4**	**5**	**6**
strongly disagree	**disagree**	**somewhat disagree**	**somewhat agree**	**agree**	**strongly agree**
I feel comfortable dealing with depressed employees **(R)**					1 2 3 4 5 6
Employees with depression scare me					1 2 3 4 5 6
Working with depressed employees is stressful					1 2 3 4 5 6
It makes me feel awkward working alongside someone who is depressed					1 2 3 4 5 6
If an employee is suffering from depression, it is his/her own fault					1 2 3 4 5 6
Employees with depression are a liability to an organisation					1 2 3 4 5 6
Employees needing antidepressants should not be working					1 2 3 4 5 6
Employees with depression could snap out of it if they wanted to					1 2 3 4 5 6
I would avoid talking to an employee with depression so I don't have to deal with their problems					1 2 3 4 5 6
I would not employ someone if I knew they had been depressed					1 2 3 4 5 6
I would make temporary changes to the job to help a depressed employee's recovery process **(R)**					1 2 3 4 5 6
I would try to get rid of an employee with depression					1 2 3 4 5 6

Please read the following vignette and answer the questions below:

John is 30 years old. He has been feeling unusually sad and miserable for the last few weeks. Even though he is tired all the time, he has trouble sleeping nearly every night. John doesn't feel like eating and has lost weight. He can't keep his mind on his work and puts off making any decisions. Even day-to-day tasks seem too much for him. This has come to the attention of John's boss who is concerned about his lowered productivity.

Please read each statement and circle a number to indicate how willing you would be to:				
1	**2**	**3**	**4**	
Definitely willing	**Probably willing**	**Probably unwilling**	**Definitely unwilling**	
Move next door to John				1 2 3 4
Spend an evening socialising with John				1 2 3 4
Make friends with John				1 2 3 4
Have John start working closely with you on a job				1 2 3 4
Have John marry into your family				1 2 3 4

Please indicate the extent to which you would experience the following:					
1	**2**	**3**	**4**	**5**	
Definitely not	**Probably not**	**Neutral**	**Probably would**	**Definitely would**	
Concern					1 2 3 4 5
Desire to help					1 2 3 4 5
Pity					1 2 3 4 5
Dismay					1 2 3 4 5
Unease					1 2 3 4 5
Insecurity					1 2 3 4 5
Desire to withdraw					1 2 3 4 5
Fear					1 2 3 4 5
Disgust					1 2 3 4 5
Irritation					1 2 3 4 5
Lack of understanding					1 2 3 4 5
Ridicule					1 2 3 4 5
Embarrassment					1 2 3 4 5
Sympathy					1 2 3 4 5

Thank you for taking the time to complete this survey.

We will be back in touch with you in approximately 6 months to invite you to complete the last short online survey for this study. In the meantime, if you have any questions about the study please contact Clare Shann clare.shann@utas.edu.au

Appendix L - Follow-up survey (experimental group) for evaluation study

Organisational leadership and workplace mental health study

This is the final survey in this study. It will take approximately 10-15 mins to complete.

Approximately what percentage of Australians do you think experience depression at some time in their lifetime?

1. 2%
2. 5%
3. 15%
4. 25%

What is the likelihood that you, someone in your family, or someone very close to you will experience depression at some stage in their lifetime?

1. Unlikely (0-25%)
2. Possible (26-50%)
3. Very likely (51-75%
4. Almost certainly (76-100%)

Please circle 'true' or 'false' to indicate your opinion about each statement.	
Depression may come and go from day to day	T/**F**
Depression-related reduced productivity ('presenteeism') at work has a bigger impact on organisations than depression-related absenteeism	**T**/F
There is always an identifiable cause of someone's depression	T/**F**
Depression and stress are pretty much the same thing	T/**F**
People with depression should stop working until they recover	T/**F**
Psychological therapy is one of the most effective treatment for depression	**T**/F
People with depression never fully recover	T/**F**
Antidepressant medication can be an effective treatments for severe depression	**T**/F

Please read each statement and circle a number to indicate your opinion about the statement.					
1	**2**	**3**	**4**	**5**	**6**
strongly disagree	**disagree**	**somewhat disagree**	**somewhat agree**	**agree**	**strongly agree**
I feel comfortable dealing with depressed employees **(R)**					1 2 3 4 5 6
Employees with depression scare me					1 2 3 4 5 6
Working with depressed employees is stressful					1 2 3 4 5 6
It makes me feel awkward working alongside someone who is depressed					1 2 3 4 5 6
If an employee is suffering from depression, it is his/her own fault					1 2 3 4 5 6
Employees with depression are a liability to an organisation					1 2 3 4 5 6
Employees needing antidepressants should not be working					1 2 3 4 5 6
Employees with depression could snap out of it if they wanted to					1 2 3 4 5 6
I would avoid talking to an employee with depression so I don't have to deal with their problems					1 2 3 4 5 6
I would not employ someone if I knew they had been depressed					1 2 3 4 5 6
I would make temporary changes to the job to help a depressed employee's recovery process **(R)**					1 2 3 4 5 6
I would try to get rid of an employee with depression					1 2 3 4 5 6

Please read the following vignette and answer the questions below:

John is 30 years old. He has been feeling unusually sad and miserable for the last few weeks. Even though he is tired all the time, he has trouble sleeping nearly every night. John doesn't feel like eating and has lost weight. He can't keep his mind on his work and puts off making any decisions. Even day-to-day tasks seem too much for him. This has come to the attention of John's boss who is concerned about his lowered productivity.

Please read each statement and circle a number to indicate how willing you would be to:				
1	**2**	**3**	**4**	
Definitely willing	**Probably willing**	**Probably unwilling**	**Definitely unwilling**	
Move next door to John				1 2 3 4
Spend an evening socialising with John				1 2 3 4
Make friends with John				1 2 3 4
Have John start working closely with you on a job				1 2 3 4
Have John marry into your family				1 2 3 4

Please indicate the extent to which you would experience the following:					
1	**2**	**3**	**4**	**5**	
Definitely not	**Probably not**	**Neutral**	**Probably would**	**Definitely would**	
Concern					1 2 3 4 5
Desire to help					1 2 3 4 5
Pity					1 2 3 4 5
Dismay					1 2 3 4 5
Unease					1 2 3 4 5
Insecurity					1 2 3 4 5
Desire to withdraw					1 2 3 4 5
Fear					1 2 3 4 5
Disgust					1 2 3 4 5
Irritation					1 2 3 4 5
Lack of understanding					1 2 3 4 5
Ridicule					1 2 3 4 5
Embarrassment					1 2 3 4 5
Sympathy					1 2 3 4 5

Please read each statement and circle a number to indicate your opinion about the statement.					
1	**2**	**3**	**4**	**5**	**6**
strongly disagree	**disagree**	**somewhat disagree**	**somewhat agree**	**agree**	**strongly agree**
Managers in my organisation know what to do if an employee has a problem with depression					1 2 3 4 5 6
Employee depression is a matter of occupational health and safety in my organisation					1 2 3 4 5 6
If an employee of my organisation is experiencing depression, there is a clear course of action that a manager should take					1 2 3 4 5 6
My organisation has a clear policy on employee mental health					1 2 3 4 5 6
My organisation has an Employee Assistance Program (EAP) that most people are aware of					1 2 3 4 5 6

Please read each statement and circle a number to indicate your opinion about the statement.					
1	**2**	**3**	**4**	**5**	**6**
strongly disagree	**disagree**	**somewhat disagree**	**somewhat agree**	**agree**	**strongly agree**
In my organisation, it is not considered appropriate to discuss problems like depression					1 2 3 4 5 6
Employees in my organisation would be hesitant to disclose that they were suffering from depression					1 2 3 4 5 6
In my organisation, you should not tell anyone if you have depression					1 2 3 4 5 6
Most people in my organisation would agree that the workplace provides an opportunity to help depressed employees **(R)**					1 2 3 4 5 6
Employee depression is considered a suitable topic for discussion in my workplace **(R)**					1 2 3 4 5 6
In my organisation, your career would be over if you told anyone that you are suffering from depression					1 2 3 4 5 6

Please read each statement and mark the response that best indicates your opinion about the statement:

I have used the knowledge gained from the online program to promote mental health in my workplace

a. Yes, with clearly positive results
b. Yes, but I haven't experienced any discernible results yet
c. Not yet, but I expect to
d. I don't have any plans to do this.

I have used the advice given in the online program to promote mental health in my workplace

a. Yes, with clearly positive results
b. Yes, but I haven't experienced any discernible results yet
c. Not yet, but I expect to
d. I don't have any plans to do this.

Which of the following best represents the extent to which you have used the knowledge and advice from the online program?

a. I have put the action plan I wrote as part of the program into action with a positive result
b. I completed an action plan as part of the program and have made some progress on it
c. I completed an action plan as part of the program, but it has not been put into action yet
d. I have no intention of implementing my action plan
e. I didn't complete an action plan as part of the program.

Which statement best represents your feelings about your manager's commitment to workplace mental health?

a. I think my manager has a sincere interest and is fully committed to supporting a mentally healthy workplace and assisting employees who may have depression
b. I think my manager means well, but has not committed fully to effort
c. I think my manager sees this process as little more than a 'tick the box' exercise
d. I think my manager has no commitment at all to this process.

Which statement best represents your own commitment to mental health in the workplace?

a. I have a sincere interest and am fully committed to ensuring that our workplace is as mentally healthy as possible and that employees with depression are supported appropriately
b. I am mostly positive, but have not committed fully to the effort yet
c. I think this process is like more than a 'tick the box' exercise
d. I have no commitment at all to this process.

☐ Please tick this box if you do not want to be contacted by the researcher to participate in a short (15-30 mins) phone interview.

Thank you for taking the time to complete this survey.

Appendix M - Follow-up survey (control group) for evaluation study

Organisational leadership and workplace mental health study

This is the final survey in this study. It will take approximately 10-15 mins to complete.

☐ Tick here to confirm that you haven't completed *beyondblue's* online program/resource for leaders (you will be sent a link to this program at the end of this study, please do not complete it until then).

Approximately what percentage of Australians do you think experience depression at some time in their lifetime?

1. 2%
2. 5%
3. 15%
4. 25%

What is the likelihood that you, someone in your family, or someone very close to you will experience depression at some stage in their lifetime?

1. Unlikely (0-25%)
2. Possible (26-50%)
3. Very likely (51-75%
4. Almost certainly (76-100%)

Please circle 'true' or 'false' to indicate your opinion about each statement.	
Depression may come and go from day to day	T/**F**
Depression-related reduced productivity ('presenteeism') at work has a bigger impact on organisations than depression-related absenteeism	**T**/F
There is always an identifiable cause of someone's depression	T/**F**
Depression and stress are pretty much the same thing	T/**F**
People with depression should stop working until they recover	T/**F**
Psychological therapy is one of the most effective treatment for depression	**T**/F
People with depression never fully recover	T/**F**
Antidepressant medication can be an effective treatment for severe depression	**T**/F

Please read each statement and circle a number to indicate your opinion about the statement.					
1	**2**	**3**	**4**	**5**	**6**
strongly disagree	**disagree**	**somewhat disagree**	**somewhat agree**	**agree**	**strongly agree**
I feel comfortable dealing with depressed employees **(R)**					1 2 3 4 5 6
Employees with depression scare me					1 2 3 4 5 6
Working with depressed employees is stressful					1 2 3 4 5 6
It makes me feel awkward working alongside someone who is depressed					1 2 3 4 5 6
If an employee is suffering from depression, it is his/her own fault					1 2 3 4 5 6
Employees with depression are a liability to an organisation					1 2 3 4 5 6
Employees needing antidepressants should not be working					1 2 3 4 5 6
Employees with depression could snap out of it if they wanted to					1 2 3 4 5 6
I would avoid talking to an employee with depression so I don't have to deal with their problems					1 2 3 4 5 6
I would not employ someone if I knew they had been depressed					1 2 3 4 5 6
I would make temporary changes to the job to help a depressed employee's recovery process **(R)**					1 2 3 4 5 6
I would try to get rid of an employee with depression					1 2 3 4 5 6

Please read the following vignette and answer the questions below:

John is 30 years old. He has been feeling unusually sad and miserable for the last few weeks. Even though he is tired all the time, he has trouble sleeping nearly every night. John doesn't feel like eating and has lost weight. He can't keep his mind on his work and puts off making any decisions. Even day-to-day tasks seem too much for him. This has come to the attention of John's boss who is concerned about his lowered productivity.

Please read each statement and circle a number to indicate how willing you would be to:				
1	**2**	**3**	**4**	
Definitely willing	**Probably willing**	**Probably unwilling**	**Definitely unwilling**	
Move next door to John				1 2 3 4
Spend an evening socialising with John				1 2 3 4
Make friends with John				1 2 3 4
Have John start working closely with you on a job				1 2 3 4
Have John marry into your family				1 2 3 4

Please indicate the extent to which you would experience the following:					
1	**2**	**3**	**4**	**5**	
Definitely not	**Probably not**	**Neutral**	**Probably would**	**Definitely would**	
Concern					1 2 3 4 5
Desire to help					1 2 3 4 5
Pity					1 2 3 4 5
Dismay					1 2 3 4 5
Unease					1 2 3 4 5
Insecurity					1 2 3 4 5
Desire to withdraw					1 2 3 4 5
Fear					1 2 3 4 5
Disgust					1 2 3 4 5
Irritation					1 2 3 4 5
Lack of understanding					1 2 3 4 5
Ridicule					1 2 3 4 5
Embarrassment					1 2 3 4 5
Sympathy					1 2 3 4 5

Please read each statement and circle a number to indicate your opinion about the statement.					
1	**2**	**3**	**4**	**5**	**6**
strongly disagree	**disagree**	**somewhat disagree**	**somewhat agree**	**agree**	**strongly agree**
Managers in my organisation know what to do if an employee has a problem with depression					1 2 3 4 5 6
Employee depression is a matter of occupational health and safety in my organisation					1 2 3 4 5 6
If an employee of my organisation is experiencing depression, there is a clear course of action that a manager should take					1 2 3 4 5 6
My organisation has a clear policy on employee mental health					1 2 3 4 5 6
My organisation has an Employee Assistance Program (EAP) that most people are aware of					1 2 3 4 5 6

Please read each statement and circle a number to indicate your opinion about the statement.					
1	**2**	**3**	**4**	**5**	**6**
strongly disagree	**disagree**	**somewhat disagree**	**somewhat agree**	**agree**	**strongly agree**
In my organisation, it is not considered appropriate to discuss problems like depression					1 2 3 4 5 6
Employees in my organisation would be hesitant to disclose that they were suffering from depression					1 2 3 4 5 6
In my organisation, you should not tell anyone if you have depression					1 2 3 4 5 6
Most people in my organisation would agree that the workplace provides an opportunity to help depressed employees **(R)**					1 2 3 4 5 6
Employee depression is considered a suitable topic for discussion in my workplace **(R)**					1 2 3 4 5 6
In my organisation, your career would be over if you told anyone that you are suffering from depression					1 2 3 4 5 6

Thank you for taking the time to complete this survey. You have now completed your participation in the study. You may now access the beyondblue online resource for leaders if you wish. It can be accessed here: http://learn.beyondblue-elearning.org.au/leadership-online/

Appendix N - Full listing of thematic coding descriptions, coding rules and illustrative examples for the evaluation study

Theme	Sub-Theme	Description	Illustrative Example
1. Information and awareness	a. Providing information to employees	Leaders providing information from the program to employees.	"We've used a lot of the stats in presentations that we give staff."
	b. Increasing awareness and knowledge	The awareness and knowledge of leaders who participated in the study increased as a result of being exposed to the program.	"Having that knowledge is just helpful to remember that there are people within the team, who may keep it to themselves, who have some sort of mental health issues."
2. Providing assistance to access mental health services/assistance	c. Helping an employee who is struggling	Leaders using the information in the online program to talk to a staff member about concerns about their mental health and encourage them to get professional help.	"I have…a staff [member]…who spiralled into massive depression because she found out she was infertile and she's a young woman.…I kind of got things moving for [her] as much as I could."

	d. Self-help	Leaders realising (through information contained in the program) that they need professional help.	"…without kind of knowing it I was actually in the middle of what was later diagnosed as a depressive episode myself. I was unaware…it was sitting down and listening to some of the people on the video, and I thought 'oh my god, that's what I'm experiencing'."
3. Positive impact of the online program	e. Encouraging discussions and conversations about mental health with other leaders and staff	Leaders who used the material from the online program as the basis for conversations about the mental health and wellbeing of staff with other leaders and managers.	"I've talked to other leaders in my circle about this too. Saying 'Hey, there's this program that might just help you to not have a sleepless night'. It's frustrating to think that this is out there, but we're all so busy so we don't deal with it."
	f. Inspired action and help-seeking	Staff accessing professional help for their mental health as a result of conversations with leaders who participated in the study.	"I know that in terms of later when we ran the 3-4 hours suicide prevention workshops…I do know that people went on to the EAP, I know of at least 4 that did that."
	g. Organisational changes resulting from the online program	Changes made to the workplace by leaders as a result of completing in the online program.	"I had a discussion with my manager saying this is something that we really need to be across and we've started writing it into their job descriptions and performance things, I guess staff welfare and having awareness and issues and we'll have to work out with each person how we actually go through dealing

			with issues if they arise again."
4. Enablers of use of the material	h. Proactive and committed leadership	Leaders comment on the level of commitment of other leaders in the workplace to this topic.	"Yes, we take this stuff seriously. We try our best to do it, right down from the MD."
	i. Personal relevance, leaders' own experience with mental health problems (self and others)	Leaders comments on their own personal experiences with depression and mental health problems.	"I mean I have to put my hand up and say that I've suffered from depression myself."
	j. Existing workplace activities and existing knowledge	Leaders outline of existing workplace mental health programs and activities that are happening in their organisation.	"We have quite a well advanced health and wellbeing program which includes mental health. I make [it] mandatory for everyone who supervises people, but open house for non-supervisors. And everyone who managed staff, right down from the managing director, they all came."
5. Barriers to implementation and use of the material	k. Difficult subject matter	Leaders describing the topic of workplace mental health being a particularly difficult one to discuss in the workplace.	"It's just such a big issue and there's still so much to do. It's just such a hard subject to talk about."

l. Lack of leadership/HR support within organisation	The absence of support from other leaders and HR for the topic of workplace mental health in their workplace.	“It has to be something that is lead from the top down and buy-in from middle management is crucial. At the moment we don’t have that.”
m. Lack of opportunity to implement	Leaders who had not had the opportunity to implement any material from the online program since completing it.	“And I know a lot about mental health and so I haven’t needed to use it. I’m not the basic user, I’m trained in mental health.”
n. Lack of suitability to role	Leaders reflections that their current role is not a leadership role and, therefore, they did not have an opportunity to implement their action plans.	“It reminded me that I was probably struggling to come up with actions that I felt would have been within my scope of role…I’m not really in a position in this role as a leader here.”
o. Organisational and institutional factors and political climate	External factors (organisational, institutional and political) that impacted on whether or not the leaders implemented the learning from the online program.	“And then 3 months ago I changed roles and the new company, while I started writing the action plan, was no where near that level of maturity to begin where we had been at the same place. It would take 3-4 years to get there.“

	p. Time constraints and competing priorities	Leaders stating that competing demands and their lack of time were contributors to their inability to implement the learning from the program.	"It's not that material that is the barrier, it's my time and my availability and I'm really busy at the moment."
6. Stigma and taboo topic of mental health	q. Prevalence and impact of stigma at work	Comments about the prevalence of stigmatising attitudes in the workplace.	"You don't feel like admitting to someone that you've had this kind of experience because then you think that they are going to take the attitude towards you of 'he's the troubled soul, he could break down at any time, we don't want to put him in a senior position because he might flip out on us'."
	r. Helping to overcome the stigma	Leaders comment about how the material in the online program helped to challenge the stigma in the workplace.	"I think there is such a taboo about mental health issues. I think that this type of thing will draw attention to the fact that you can still be a functioning person in society but that you have this as well."

Appendix O - Outline of the most viewed sections of the online program, provided by beyondblue

For the period between 1st August 2013 and 14th October 2014[11]

Top ten most viewed sections of the online program:

Top ten program sections	Total views	Unique views
Impact map tool ('your role as a leader')	8,492	383
Cost calculator tool (what depression costs your organisation)	7,557	738
Risk factors tool (identification of specific risk factors in your workplace)	2,991	478
Starting the conversation tool (how to have a conversation in your workplace)	2,019	332
Action plan tool	1,939	245
Research page on your role as a leader, supporting the impact map tool	1,757	76
Personal experience video clips	1,484	397
Research page outlining costs to your organisation of untreated depression	1,320	106
Research page outlining the background to the action plan	920	96
Research page on risk factors	525	97
TOTAL	**43,374**	**7,794**

[11] As this program is available to the general public through the beyondblue website, it includes data from both the study participants and the general public.

Top ten endorsed workplace risk factors in the risk factors tool:

Top ten workplace risk factors	**Total views**	**Unique views**
High demands	331	324
Work overload or pressure	287	280
Lack of control	225	221
Unrealistic deadlines	212	202
Boring repetitive work	205	198
High uncertainty	202	194
Low job control	181	179
Underuse of skills	180	175
Long or unsocial hours	169	165
Shift work	152	147
TOTAL	**2,991**	**478**

Top ten endorsed actions included in the action plan tool:

Top ten actions	**Total views**	**Unique views**
Make workplace mental health and organisational value and goal	234	178
Speak about mental illness in the workplace (including personal experiences)	213	162
Allocate necessary resources and set the measurement framework	178	143
Develop your leadership and people management skills	161	128
Hold managers at all levels accountable to maintaining a mentally healthy workplace	157	120
Commence a review of existing policies, programs and procedures	138	82
Integrate mental health with other organisation polices and programs	114	75
Manage risks and improve workplace culture and job design	107	65
Make mental health part of the annual strategic planning and budgeting process	86	61
Make available evidence-based self-care tools	82	52
TOTAL	**1,939**	**245**